

The First Sampling System to Offer  
High Performance and Low Cost in a Small Package



## DynaPak™ Sampling System

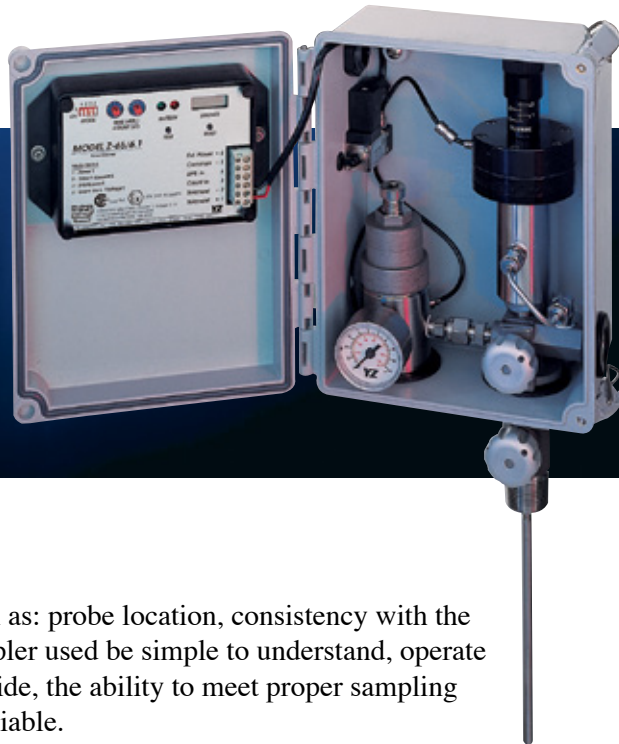
*The Industry Leader in... Natural Gas, Light Liquid  
Hydrocarbon Sampling & Odorant Injection Technologies*



# Reliable Solutions That Simply Work

The measurement of Natural Gas & Light Petroleum Liquids has reached the pinnacle of refinement.

Electronic flow measurement is the accepted standard for accurate measurement in custody transfer and allocation applications. These accepted standards continue to place importance on proper sampling techniques in the collection of a representative sample from the flow stream.



## This Technology is **Accuracy in Sampling**

When you consider the varying elements of proper sampling such as: probe location, consistency with the flow stream, and phase of the sample, it is important that the sampler used be simple to understand, operate and maintain. That's what the DynaPak™ series of samplers provide, the ability to meet proper sampling techniques while remaining simple to operate and functionally reliable.

All the primary elements of the DynaPak System are designed to be easy to use and operate. The electronic controller is customer selectable to determine the mode of operation. And in 3 minutes and 3 seals, the DynaPak Pump-2000 can be removed, rebuilt, and returned to service all without removing the probe. Even the installation and start-up are simple.

YZ has manufactured the DynaPak for over a decade with simplicity and reliability in mind, continually refining the design to provide you with the leading sampling technology in the industry.

## DynaPak Sampling Systems

For those looking for accurate, reliable sampling systems at an affordable price, here it is. The DynaPak series uses low-power microprocessor technology offering more versatility and wider range of control and simplicity.

## Extended Battery Life

If you remove the front cover from either the Z-65 or Z-200 Controller, you'll find a really small battery pack. This four "AA" sized power-house runs the entire show...the electronics, the solenoid, everything... up to two years or longer! When you finally do need to replace this little dynamo, a warning light will give you advanced notice. This micro-power eliminates the need for solar panels and bulky lantern batteries.



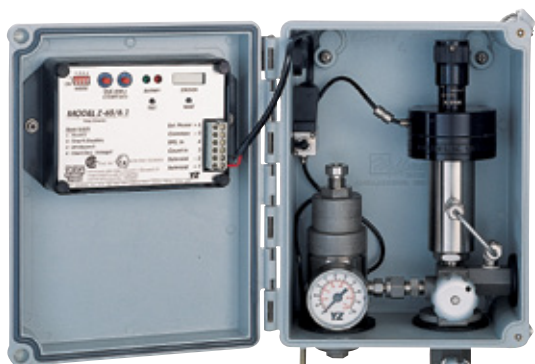
## Ultimate Corrosion Protection

The controllers are completely potted in a specially developed epoxy-resin housing. This insulated protection keeps the electronic "guts" from being exposed to adverse conditions. Plus, we've used gold plated terminals and contacts to enhance conductivity and provide longer field life.



## Verification Sampling Performance

At-a-glance inspection of sample strokes can be made using the on-board six-digit counter. If you need remote monitoring, our SmartSite constant pressure sample cylinder can provide data on the sampling volume to your Flow Computer, RTU or SCADA system. This data can be analyzed in a myriad of ways giving you a new level of productivity not possible before.



*The DynaPak Series is not only compact, but simple to select. We've reduced the entire sampling spectrum to only three models. The DynaPak 2000 for Gas and the DynaPak 3000 for liquids.*



## The DynaPak 2010

The Dynapak 2010 is engineered for those wanting proportional-to-flow sampling: straight time-based sampling; or time-based with on/off sampling.



**This on-line approach is designed around the patented DP-2000 pump.**



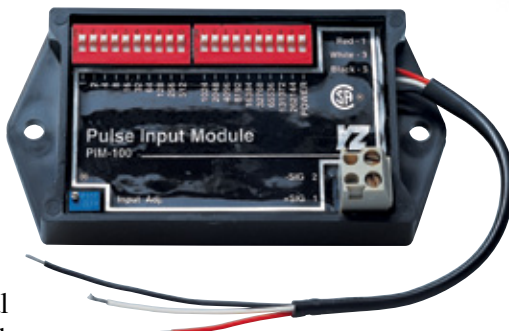
*Featured Above; the optional ANSI 900 DynaPak is rated for a working pressure up to 2,160 psi.*

### ***What's more, you get:***

- An on-board six-digit LCD counter
- Up to two year system operation using a 4 "AA" sized battery pack
- Diagnostic test functions
- Sealed switches
- Gold plated terminals
- Locally mounted wiring assembly

## The DynaPak 2010

The DynaPak 3010 Sampler offers the most advanced on-line approach to the collection of small sample volumes of liquids on the market today. If you need proportion-to-flow or time-based, the 3010 provides accurate, reliable sampling affordably.



The Z-65 controller works in harmony with the optional PIM-100, Pulse Input Module, interfacing with magnetic pick-ups from a turbine meter.

## The DynaPak 2020

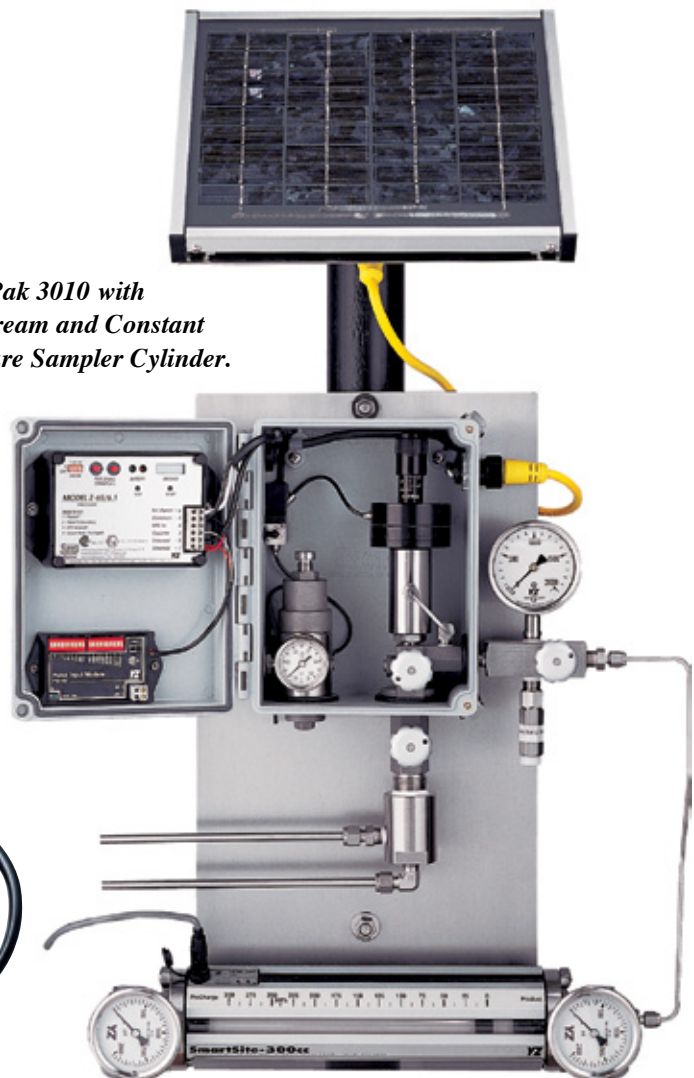
In situations where an analog flow signal is available and proportional-to-flow sampling is desired, the DynaPak 2020 is the answer.



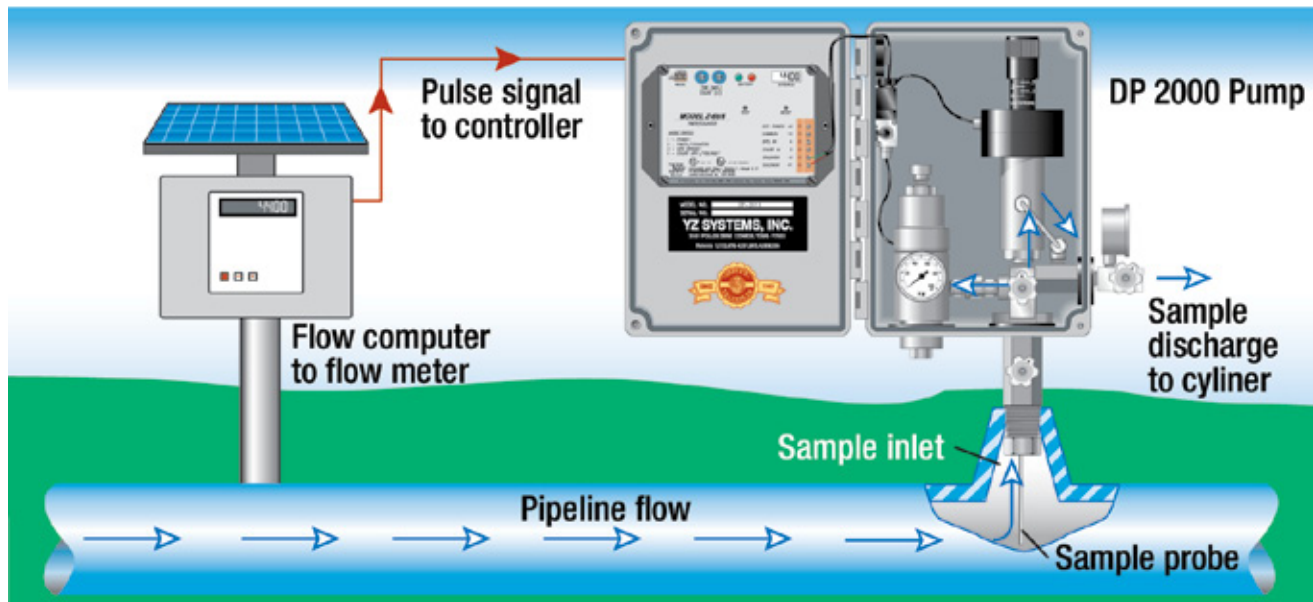
*The Intrinsically safe and approved Z-200 is used in the DynaPak 2020*

Visual inspection of sample strokes can be made using an on-board six-digit LCD counter. The 4 "AA" sized battery pack provides up to two years of complete system power, including the optional transmitter.

***DynaPak 3010 with SlipStream and Constant Pressure Sampler Cylinder.***

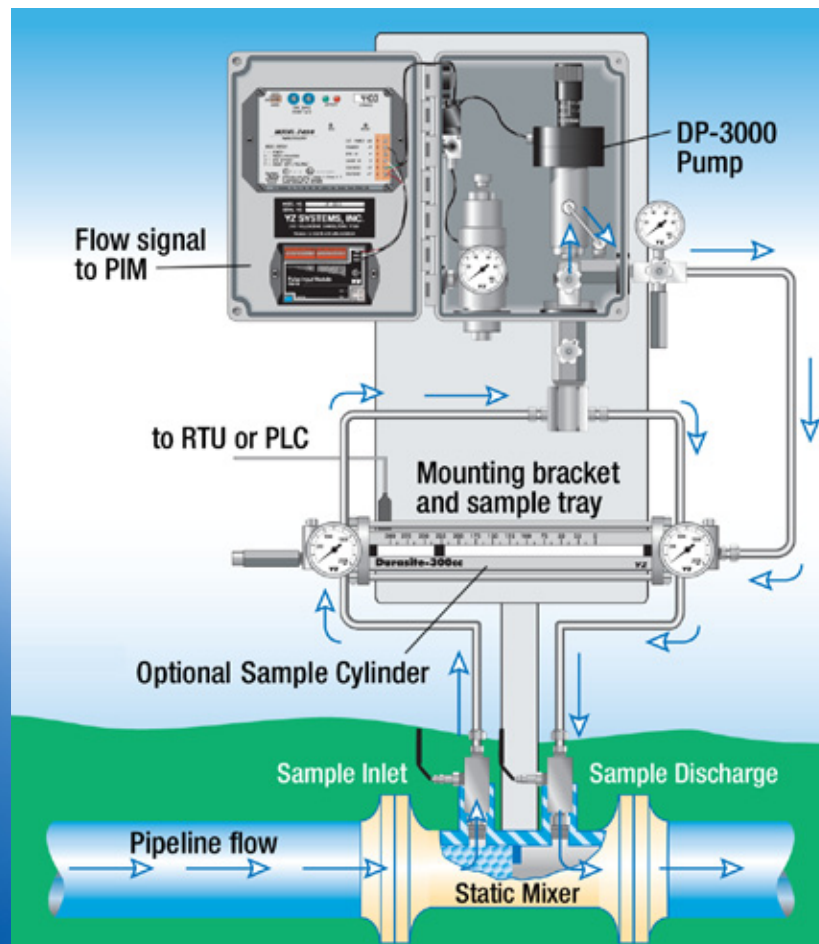


## The DynaPak 2010



*The DynaPak 2010 system is configured for proportional-to-flow sampling.*

## The DynaPak 3010 RM



*This DynaPak 3010 RM illustration demonstrates the proportion-to-flow sampling configuration using our constant pressure sample cylinder that can provide data on the sampling volume to your Flow Computer, RTU or SCADA system.*



# The Heart of Our System is the Pump

*3 seals, 3 minutes and the DynaPak Pump-2000 can be removed, rebuilt, and returned to service, all without removing the probe.*

*For maximum strength and rigidity, the DynaPak probe body is a solid, one piece 316 stainless casting.*

At the very core of every YZ sampler is the patented DynaPak pump. Specially designed and developed for natural gas and liquid sampling, the DynaPak is the answer for accurate measurement programs.

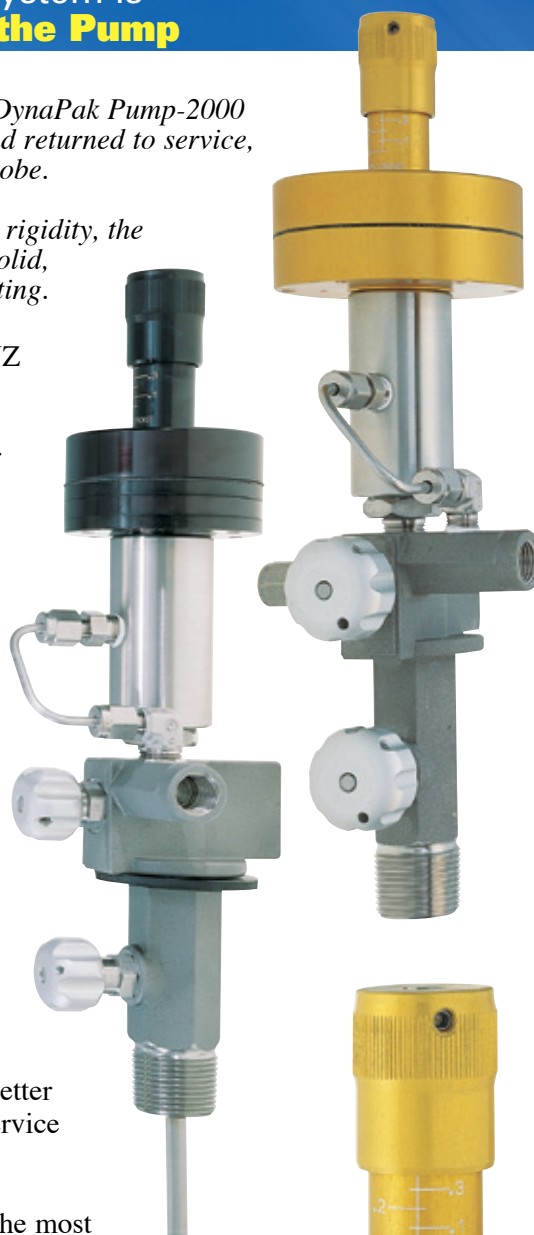
## **Simple, Reliable Performance**

Let's face it, as long as it's mechanical, and variable conditions exist, there will be occasional maintenance. But, and this is very important, we provide solutions.

When our customers asked for a more reliable, better performing and easier-to-service pump, we responded.

Which brings us to one of the most important benefits of the DynaPak: dependability.

While improving the sampling performance, we also reduced pump components-by approximately 30%. That means reduced field maintenance, simpler repairs which will provide a lower cost of ownership.



## **Adjustable Displacement**

Let's suppose you had a situation that required a sampler to fill a 150cc sample vessel in 30 days. Maybe another installation called for a 1000cc sample in 24 hours. No problem.

The displacement can be infinitely adjusted from 0-.4cc's per stroke offering you the widest range of possibilities available.

## **Sample Integrity**

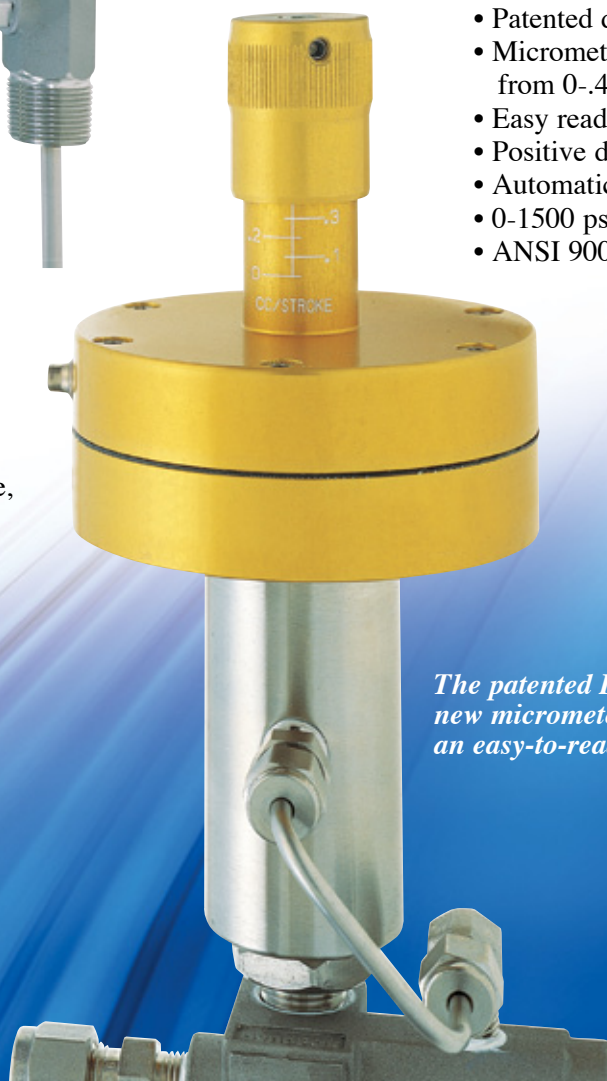
The DynaPak system can be mounted directly to the pipeline. This ensures sample integrity by placing the sample point and the sampling system close together.

*What's More...*

You'll find we don't compromise when it comes to quality assurance, integrity and simplicity.

The DynaPak pump offers:

- Patented design
- Micrometer adjustment displacement from 0-.4cc's/stroke
- Easy read volume/stroke scale
- Positive displacement
- Automatic balance valve
- 0-1500 psi operating range, ANSI 600
- ANSI 900 systems available



*The patented DP-2000 features a new micrometer adjustment with an easy-to-read scale*

# DynaPak Accessories & Specifications

## Heated DynaPak™ DP-2010U

The HeatPak™ is a heated environment for the DynaPak. Engineered to maintain the phase of the sampled flow stream under API 14.1 standards, the HeatPak features an enclosure that is flame retardant to 500° F.

Accompanied by a 1500 btu catalytic heater with a 12 vdc starter, the HeatPak has a thermostat that reduces the fuel consumption by 50% when the set point is achieved.



## LinkPlus™

LinkPlus™ provides a direct link between the DynaPak 2010, 2020 or 3010 and your sample vessel. This compact over-pressure device and gauge proves beneficial in troubleshooting your system as well as protection.

LinkPlus is constructed of 316 stainless steel and includes a pressure gauge, rupture disk and isolation valve.



Part No

C1-0002	100 psi gauge
C1-0003	300 psi gauge
C1-0004	500 psi gauge
C1-0005	1000 psi gauge
C1-0006	2000 psi gauge
C1-0120	3000 psi gauge

## YZ BackRack™



All it takes is the direct-mount YZ BackRack™ vessel tray to eliminate the need for an additional 2" mounting pipe, and minimize the distance between the sample pump outlet and sample vessel inlet.

Constructed of 14 gauge stainless steel, this unit bolts directly to the back of the DynaPak 2010, 2020 or 3010. All you have to do is lay your 300 or 500cc cylinder into the tray and attach your tubing from the sample to the vessel.

Part No. . . . . C0-0027

## Spun Cylinders

Available in 300, 500 or 1000cc capacities, the Spun Cylinder retains an 1,800 psi maximum working pressures, with 1/4" NPTF connections at either end.

- DOT approved
- Smooth internal bore
- Accessory valves and gauges are available

Part No

C6-0002	300cc
C6-0003	500cc
C6-0004	1000cc

SS Valve Pkg's:

Part No

C1-0007	2-MxF
C1-0008	1-MxF & 1-MxFw/RDisc.
C1-0009	1-MxF, 1-MxF w/RDisc & 100psi gauge
C1-0010	1-MxF, 1-MxF w/RDisc & 300psi gauge
C1-0011	1-MxF, 1-MxF w/RDisc & 600psi gauge
C1-0012	1-MxF, 1-MxF w/RDisc & 1000psi gauge



## Static Mixer Spool

The Static Mixer Spool Piece assists in obtaining a representative sample from the flow stream by creating a homogeneous mix in the pipeline.

The Static Mixer Spool Piece is available in ANSI 600 and 900 versions to meet a variety of applications.



## DuraSite™

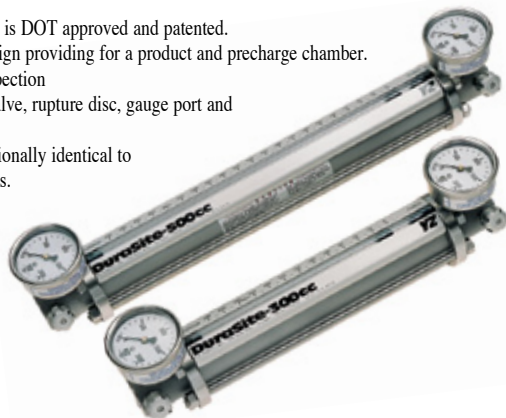
The DuraSite™ Constant Pressure Cylinder is DOT approved and patented. The DuraSite has a free-floating piston design providing for a product and precharge chamber.

- Magnetic volume indicator for visual inspection
- Solid 316 ss head integrates the needle valve, rupture disc, gauge port and purge valve in one unit.
- Available ANSI 1500 models are dimensionally identical to standard DuraSite and SmartSite cylinders.

Part No

DS-150	150cc capacity
DS-300	300cc capacity
DS-500	500cc capacity
DS-1000	1000cc capacity

Call for ANSI 900 & 1500 models and price



## YZ Cylinder Cases



YZ Cylinder Cases exceed all DOT requirements. These cases are constructed of shock resistant ABS plastic featuring all stainless steel hardware, including a full length piano hinge.

- Low-profile security latches
- Various sizes available

Part No

KK-1	26 x 7 x 5"
KK-2	36 x 8 x 6"
KK-3	26 x 16 x 5"



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