

DynaPak™

SAMPLING SYSTEM



THE FIRST SAMPLING SYSTEM
TO OFFER HIGH PERFORMANCE
AND LOW COST IN A SMALL PACKAGE

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 flow sampling.

The Intrinsicly safe and approved Z-65 is used in the DynaPak 2010 and 3010



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

In the counter mode, the Z-65 becomes a 2-digit scaling counter, accepting all types of flow computer pulse inputs. In the timer mode, the Z-65 functions as an adjustable (1-99 min) recycling timer. With the addition of the DPS-2 differential flow switch, the Z-65 timer will be turned on or off depending on flow.

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



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

The DynaPak 3010

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 a flow signal is not available and proportional-to-flow sampling is desired, the DynaPak 2020 is the answer.

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



An optional Rosemount™ 2024 differential pressure transmitter works with the 2020 for field connections when used with an orifice plate.

The Z-200 reads the transmitter flow signal and adjusts the sampling frequency to achieve proportional-to-flow sampling.

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.

The Z-200 features:

- intrinsically safe and approved
- accepts analog flow signal
- easy field programming
- up to two year battery operation
- sealed switches
- diagnostic test switch
- gold plated terminals
- completely potted electronics



The DynaPak 2020 illustrating the proportion-to-flow sampling configuration using the Rosemount™ 2024 differential transmitter.

The DynaPak 3010 also features:

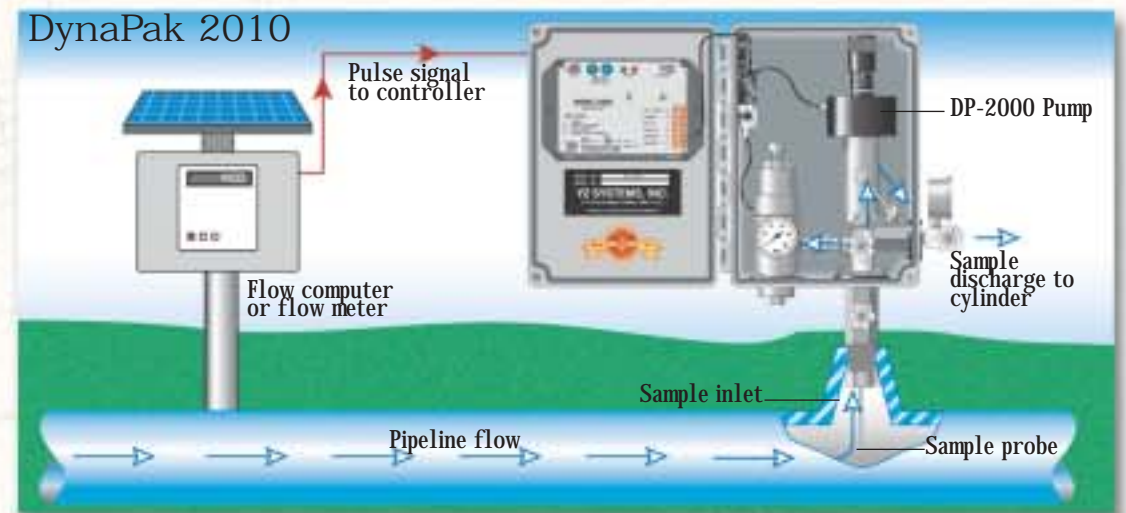
- on-board six-digit LCD counter
- intrinsically safe and approved Z-65 controller
- locally mounted wiring assembly
- stainless steel filter regulator
- discharge relief valve
- optional stainless steel mounting bracket with integral sample vessel tray



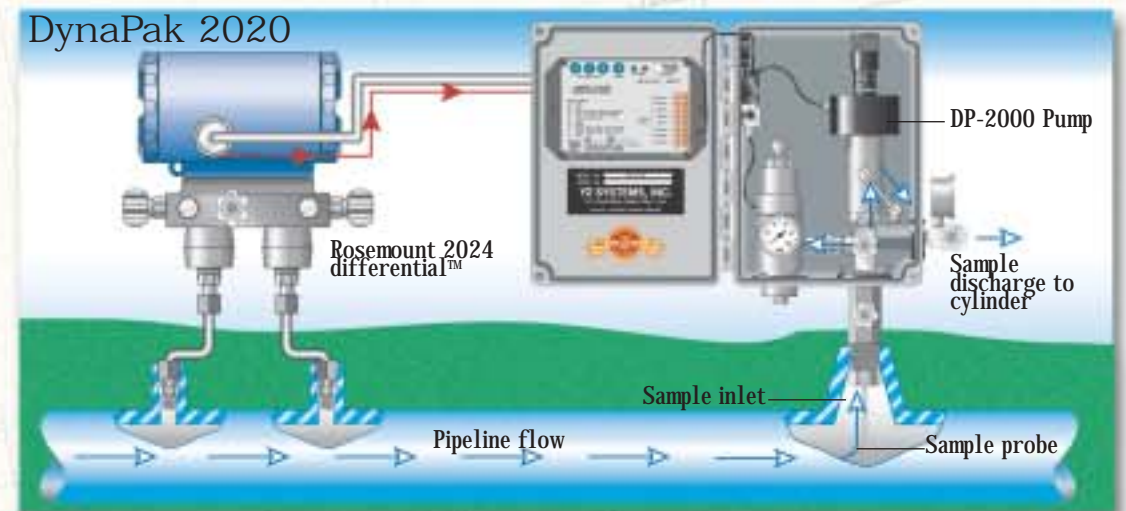
DynaPak 3010 with SlipStream and SmartSite Constant Pressure Sampler Cylinder.

DynaPak 2010

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

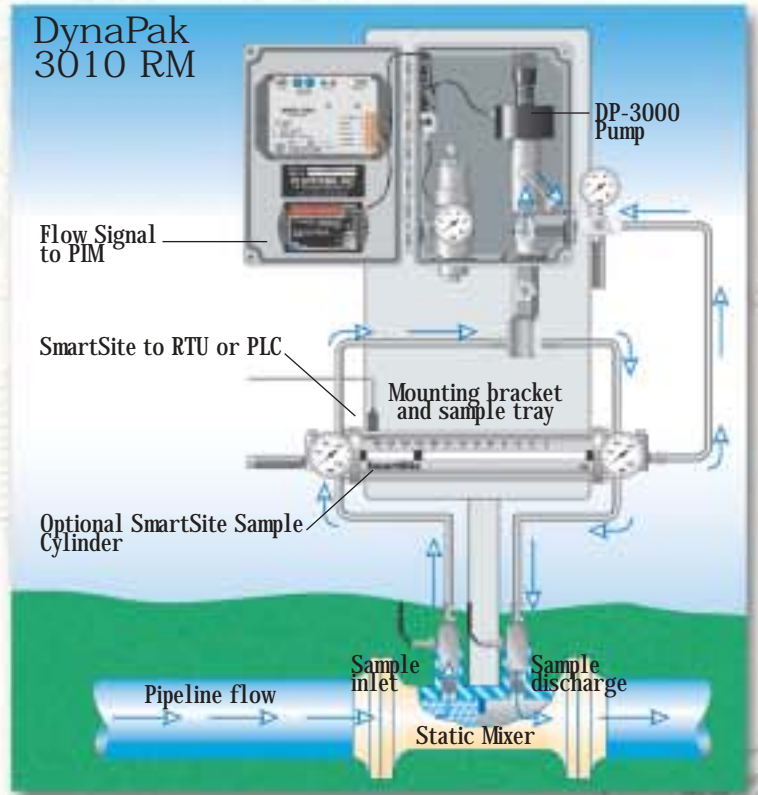


DynaPak 2020



DynaPak 3010 RM

This DynaPak 3010 RM illustration demonstrates the proportion-to-flow sampling configuration using our SmartSite 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

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 insures 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

*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.*

*Optional
ANSI 900
DynaPak
Pump*

*ANSI 600
DynaPak
Pump*

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.

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



DYNAPAK ACCESSORIES AND SPECIFICATIONS



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™ 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 an 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



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 NoC0-0027



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.



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/R.Disc & 100psi gauge
C1-0010	.....1-MxF, 1-MxF w/R.Disc & 300psi gauge
C1-0011	.....1-MxF, 1-MxF w/R.Disc & 600psi gauge
C1-0012	.....1-MxF, 1-MxF w/R.Disc & 1000psi gauge



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



The SmartSite™ constant pressure sampler cylinder eliminates guess work by providing a 4-20mA output in proportion to the volume accumulated in the sample cylinder.

When connected with a telemetry or SCADA system you can remotely read the level of your SmartSite cylinder on an offshore platform or remote inland location without leaving the office.

- Adjustable on-board zero and span
- DOT approved
- Visual level indicator

Part No	
SS-150	.....150cc capacity
SS-300	.....300cc capacity
SS-500	.....500cc capacity
SS-800	.....800cc capacity
SS-1000	.....1000cc capacity



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	.....26x7x5"
KK-2	.....36x8x6"
KK-3	.....26x16x5"

