Model 2044

Model 2042

Model MPC 302 Z

Model MPC 601 T

Specifications & Ordering - p. 29, 31, 32

- **Fast evaporation**
- **Low maintenance – no oil changes**
- **Reliable chemical duty diaphragm pump**

DNA pelleting drying times with an oil-free chemical duty diaphragm pump are equivalent to oil-sealed rotary vane pumps. Because of the lower maintenance of the diaphragm pump, these oil-free (dry) pumps have become the pump of choice. A diaphragm vacuum pump with flow rate of 35 lpm and ultimate vacuum pressure to 9 torr (12mbar) is needed to quickly dry the pellet. Recommended for most centrifugal concentrators including Thermo Speedvac® and Labconco Centrivap®.

**Model 2044 DryFast®** Two-stage chemical duty diaphragm vacuum pump with ultimate vacuum pressure of 9 torr (12mbar) and flow of 35 lpm@60Hz. The rugged, low maintenance oil-free pump has one PTFE head, perfluorelastomer valves, and fluoroplastic wetted surfaces that make it suitable for ethanol and water evolved during pellet drying.

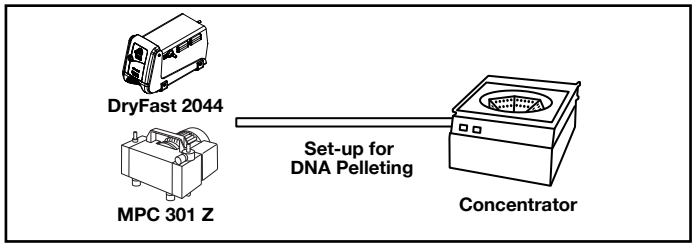
**Model MPC 302 Z** Two-stage chemical duty diaphragm vacuum pump with ultimate vacuum pressure of < 5 mbar (3.8 torr) and flow of 52 lpm@60Hz. The rugged, low maintenance oil-free pump has two PTFE heads, PEEK valves, and fluoroplastic wetted surfaces that make for ethanol and water evolved during pellet drying.

Oligoneucleotide prep and biochemical/organic sample drying times with an oil-free chemical duty diaphragm pump are equivalent to oil-sealed rotary vane pumps. A diaphragm pump with flow rate of 35 lpm and ultimate vacuum pressure to 2 torr (2.7mbar) is needed to dry samples quickly. As with an oil-sealed rotary vacuum pump, the chemical duty diaphragm vacuum pump paired with a cold trap of at least -50°C is necessary. The chemical duty diaphragm pump eliminates oil changes, frequent repairs, and oil mess. Chemical duty diaphragm vacuum pumps have the chemical resistance to handle aggressive chemicals such as TFA, HCL, formic acid, and acetic acid.

**Model 2042 DryFast® Ultra** Two-stage chemical duty diaphragm vacuum pump with ultimate vacuum pressure of 2 torr (2.7 mbar) and flow of 35 lpm@60Hz. The rugged, low maintenance oil-free pump has two PTFE heads, perfluorelastomer valves, and fluoroplastic wetted surfaces that make it suitable for the aggressive chemical vapors evolved during oligoneucleotide prep and biochemical/organic sample drying.

**Model MPC 601 T** Three-stage chemical duty diaphragm vacuum pump with ultimate vacuum pressure of 2 mbar (1.5 torr) and flow of 81 lpm@60Hz. The rugged, low maintenance oil-free pump has four PTFE heads, PEEK valves, and fluoroplastic wetted surfaces that that make it suitable for the aggressive chemical vapors evolved during oligoneucleotide prep and biochemical/organic sample drying.

Process large volume or sample count evaporations with ease using high capacity chemical duty pumps. Minimum flow of 65 lpm and ultimate vacuum to 2 torr (1.5 mbar) are recommended. See selector table below for model for recommendations.




**Model Selector** | Centrifugal Concentrator Pumps & Traps

| Application | Sample Load | Refrigeration | Model |
|---|---|---|---|
| DNA Pelleting | <1 ml, up to 24 tubes | Refrigerated trap optional | DryFast® 2044 |
| | ≥1 ml, ≥24 tubes | | 2054 |
| Oligonucleotide Preps | 2-4 ml, up to 60 tubes | -55 °C Refrigerated trap highly recommended | DryFast® 2042 |
| | ≥4 ml, ≥60 tubes | | 2052 |
| Biochemical/Organic Samples | <5 ml, up to 60 tubes | -55 °C Refrigerated trap required | DryFast® 2042 |
| | ≥5 ml, ≥60 tubes | | 2052 |
| Biochemical or large samples | <50 ml, up to 6 tubes; | -55 °C Refrigerated trap required | DryFast® 2042 |
| | ≥50 ml, ≥6 tubes | | 2052 |