

bigrep SHIELD



INDUSTRIAL FILAMENT DRY CABINET

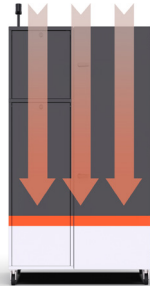
Designed to protect your filament from material degradation, the BigRep SHIELD dry cabinet stores filament in ideal conditions to save you time and money by preventing downtime and damages. Air circulates in the high-capacity, overpressured chamber capable of storing up to 60 kg of filament spools as the desiccant chamber achieves 0.01% relative humidity, crushing the industry standard of 1% by 100X. Unquestionably vital for the storage of hygroscopic materials, the BigRep SHIELD can reduce misprints and material waste due to moisture absorption in filament by up to 20%. Extend the life of your 3D printing system and save up to 50% on repair costs from clogging and extruder damage caused by moisture-absorbing materials.

ADVANCED FEATURES IN A STATE-OF-THE-ART SYSTEM



NO HUMIDITY, NO HEAT The Controlled Desiccant Air Loop

The BigRep SHIELD prevents filament moisture absorption without heat by operating in a sealed environment with air circulation. By looping air through a controlled desiccant chamber the SHIELD effectively eliminates 99.99% of airborne moisture, maintaining 0.01% relative humidity to handily beat the 1% industry-standard without risking over-drying from long-term heat exposure.



CONSTANT OVERPRESSURE The Sealed Filament Dry Chamber

The SHIELD maintains constant overpressure for an airtight storage volume. This prevents moisture from entering its chamber during regular operation and ensures the system can quickly remove any and all airborne humidity with 100% air recirculation.



INDUSTRIAL RELIABILITY The Siemens Control System

BigRep collaborated with Amboss+Langbein, an industry leader with almost 40 years expertise in drying systems for plastics manufacturing. This combined wealth of industrial knowledge, along with quality components and a Siemens control system, resulted in the robust and reliable BigRep SHIELD that ensures ultimate productivity protection at all times.



MASSIVE CAPACITY The 60 kg Storage Chamber

The industrial-sized storage chamber holds up to 60 kg of filament, enough material for one month continuous 24/7 printing. The SHIELD provides ample space for safe, long-term storage of highly-sensitive additive manufacturing materials to maintain their ideal condition.

TECHNICAL SPECIFICATIONS

Capacity	Chamber dimensions: W x D x H: 480 x 480 x 1200 mm, 276 liters Max. diameter of spool: 355 mm
Dew Point	Max. 12x 2.5 kg spools or 12x 4.5 kg spools or 6x 8-10 kg spools* -55°C (~ 0.01 % rel. hum. at 25°C)
Volume Flow	120 m ³ /h
Power	3 Phase 400V AC, N, PE Power consumption 3.5 KW
Device Dimensions	W x D x H: 1200 x 590 x 1850 mm (without handles) Door dimensions: 540 x 1100 mm
Noise Emission	Approx. 77dBA

*Reference BigRep Filament spools sizes

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