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## **SPECIFICATION**

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# *DF600* “Batch” Dry Polymer Feeder

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- Dry Polymer Batch makedown system
- Rugged stainless steel frame construction for long-lasting, reliable operation
- PE/304SS hopper options
- PE/304SS/316SS/FRP Age Tank options
- Storage tank options available
- 316 SS chemically resistant piping
- High Cycle actuated SS ball valve with stem o-rings
- Stand-alone operation
- High Velocity Turbo-Cone® wetting chamber provides exceptional dispersion to eliminate “Fish-eyes”
- Triple stage activation ensures complete product activation using heavy duty agitator of all Stainless Steel wetted construction
- Minimal floor space required
- No Transfer pump required (included)
- High reliability precision auger available with intelligent controller to sense product flow
- Highly Automated Control panel interfaces with pump skids and DCS to conduct total makedown and dosing control and feedback
- Self rinsing cone remains clean longer and eliminates 100% of escape dusting

## **DESCRIPTION**

The ASLAN TECHNOLOGIES DF600 is a self-contained automatic dry polymer batch makedown system. Complete with large capacity bulk product storage, the system is designed to run unattended between bulk fillings of the hopper. The system meters a precise amount of solid powdered product into the high velocity water layer of the Turbo-Cone® dispersion wetting cone. This is the first of a three-stage activation process. The second stage is primary diffusion of the prewetted polymer through a high velocity eductor. This eductor provides the negative pressure zone which eliminates any possibility of dusting. The solution is then positively circulated through a fixed-orifice diffuser by a high velocity mixer to achieve 100% product dispersion. A gentle low shear high flow agitator provides age tank movement for the duration of each batch to allow

activation over a precise age time without damage to the polymer chains. The last two stages are both operator controlled on an on/off and total time cycle via the touchscreen. This allows the operator to select a very precise amount of high and low energy aging to optimize age time without sacrificing product efficiency due to overshearing. Contact your ASLAN TECHNOLOGIES INC. representative for further information on the operational parameters such as concentration limitations and product compatibility.

The system includes storage hopper, solids metering auger with intelligent controller, water flowmeter, age tank and mixer, integral transfer pump, PLC/Touchscreen control, “Calibration Wizard” for dry product calibration, dosing pump PID controls, DCS interfacing and feedback, remote touchscreen options (available) and more.

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**ASLAN Technologies Inc. 5044 South Service Road, Burlington, Ontario, Canada L7L 5Y7**



Phone 905-632-4968

Fax 905 632-6730

Email [Sales@aslantech.ca](mailto:Sales@aslantech.ca)

## DF6060 Dry Polymer Makedown System

| <b>Requirements</b>                   |  |
|---------------------------------------|--|
| Electrical Supply                     | Configurations Available: 600/480/415/380VAC 3Ø, (approximately 36KVA supply required)<br>Current requirements are dependent on system voltage and configuration   |
| System Inlet Water Supply (filling)   | 2" FNPT 100-200 GPM at 70 psi minimum, based on process flow requirement, clean water  |
| System Inlet Water Supply (operating) | From above source, 1-2 LPM Seal flush water to drain   |
| System Discharge /Transfer            | 2" FNPT  |
|                                       |  |
| <b>System &amp; Component Data</b>    |  |
| Storage Hopper Options                | 140" High x 2000 Liter PE with Painted Steel Frame<br>120" High x 500 Liter All SS Hopper<br>155" High x 4500 Liter PE with SS Frame<br>136" High x 2000 Liter All SS Hopper<br><br>(1 bulk bag of 30lbs/cu.ft = approximately 2000 liters)<br><br>All frames extend above hopper top to facilitate operator reaching under protective frame to untie bag. This is a safety feature.   |
| Hopper Automation options             | "Hopper Refill/Bulk bag change required" indication, "LOW hopper level" indication   |
| Makedown Process Automation           | Batch Timeout, Transfer Timeout, Low flow alarms, low pressure alarms, pre-rinse, post-rinse dilution compensation, auger fault alarm, transfer pump alarms, manual mode timeout, cone plugging sensor initiates auto cleaning cycle before shutdown, cone overflow sensor, negative pressure sensor ensures vacuum to avoid dusting, valve limit switch alarms to avoid overflows, dosing pump PID controls, setpoints, feed back and much more |
| Auger Feed System Type                | Stainless Steel Screw Fine Pitch 100:1 Turndown dc drive, available intelligent controller   |
| Maximum Aging Time                    | Dependent upon dilution and tank sizing. Consult factory for sizing information based on process FLOW.   |
| Maximum Concentration                 | Approx 1%  |
| Maximum polymer throughput            | 25 kg's per hour, nominal. (Limited by age time)   |
| Age Tank Mixer                        | 5-10 HP, 20-24" propeller, all wetted parts Stainless Steel  |
| Age Tank Sizing                       | 1500-3000 Gallons typical for kg/day @ 15-30mins age @ 0.1-0.2% concentrations   |
| Configuration                         | Floor Boltdown, 304/316 SS Skidded System, Completely turnkey  |
| Solution Wetted Materials             | 304/316 SS, Viton, Teflon  |
| Approximate System Weight             | Net weight: 3000 lb. / Gross weight: 4000 lb.  |
| Dimensions (makedown skid)            | 60" X 60" X 155"H approx (see hopper options)  |
| Electrical Safety                     | Fuse or circuit breaker protection on all power legs where required. Inspection to UL/CSA standards by third party included.   |

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