

# **ACM DIESEL FUEL FILTRATION &** POLISHING

### **Systems and Components**

 ACM SYSTEMS INSURE FUEL THE IN STORAGE TANKS ARE AS CLEAN AND WATER FREE AS POSSIBLE. SYSTEMS AVAILABLE FROM 3GPM TO 280GPM.





 FILTRATION RATIO PER ISO **16889 AND EMULSIFIED** WATER/FUEL SEPARATION TO SAE J1488\_201010.

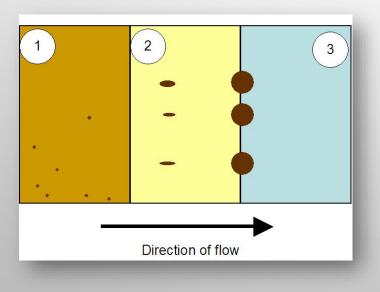


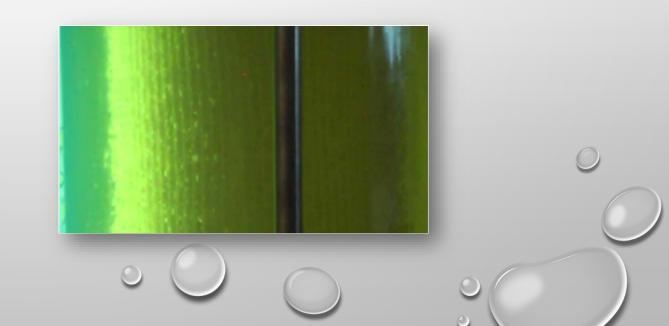
SAFETY CA



### **Coalescing Principle (Water Removal)**

- COALESCING IS THE PROCESS BY WHICH TWO OR MORE DROPLETS MERGE DURING CONTACT TO FORM A SINGLE DROPLET, BUBBLE OR PARTICLE.
- IN A FUEL APPLICATION, A COALESCING MEDIUM IS EMPLOYED IN ORDER THAT LARGER WATER DROPLETS ARE FORMED.
- LARGER, HEAVIER WATER DROPLETS SINK IN THE LIGHTER OIL, AND CAN BE
- COLLECTED IN A SUMP AND DRAINED.

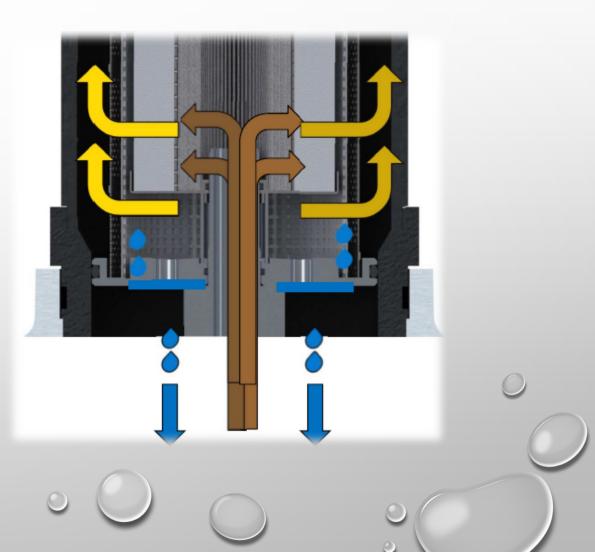






#### **Coalescing Media Design**

- CONTAMINATED FUEL ENTERS THE ELEMENT
- FUEL PASSES THROUGH SYNTHETIC MEDIA PLEAT PACK ( A SEPARATE PRE-FILTER IS RECOMMENDED & WILL PROLONG ELEMENT LIFE)
- AS CLEAN, WET FUEL PASSES THROUGH THE COALESCING LAYER. WATER COLLECTS AND DRAINS FROM THE ELEMENT BOTTOM OR FORMS LARGE DROPLETS
- CLEAN, DRY FUEL PASSES THROUGH THE DOWNSTREAM HYDROPHOBIC BARRIER
- WATER DROPLETS ARE REPELLED BY BARRIER AND FALL TO ELEMENT CHAMBER
- WATER FALLS FROM ELEMENT INTO THE FILTER HOUSING
  SUMP





### **Coalescing Media Design**

- INSIDE-OUT FLOW TO OPTIMIZE COALESCING EFFECT
- THREE ELEMENTS IN ONE PRE-FILTER, COALESCING, AND SEPARATION = SMALLER SIZE!
- 5 MICRON SYNTHETIC PRE-FILTER PLEAT PACK TO PROTECT THE DOWNSTREAM
- 25MM THICK HYDROPHILIC MONOLITHIC TUBE CAPTURES WATER WHICH EITHER DRAINS FROM THE BOTTOM OR CREATES LARGE DROPLETS
- DOWNSTREAM 25 MICRON TREATED HYDROPHOBIC BARRIER SLEEVE TRAPS DROPLETS <25 MICRON</li>
- TESTED PER SAE J1488 (PRESSURE SIDE = SMALLER WATER DROPLETS)
- TESTED WITH FUEL DOWN TO 14 DYNES/CM IFT TO REPLICATE
  PERFORMANCE WITH POOR FUEL QUALITY





# SYSTEM COMPONENTS

### **Albany G-Series Helical Pumps**

- HELICAL GEARS FOR SMOOTH, QUIET RUNNING.
- SELF PRIMING DUE TO CLOSE MANUFACTURING TOLERANCES.
- SUCTION LIFT OF UP TO 20 FEET
- CAN BE CLOSE COUPLED OR BASE MOUNTED WITH PUMP-MOTOR UNIT.
- PUMP HOUSINGS ARE OF CLOSE GRAIN CAST IRON.
- 3 SECTION DOWELED DESIGN INSURES ALIGNMENT, EFFICIENCY AND EASE OF FIELD SERVICE.
- SHAFTS ARE OF GROUND AND POLISHED STEEL.
- FULL FACE THRUST BEARINGS ARE AVAILABLE IN BRONZE, CARBON, AND CAST IRON.
- MECHANICAL SEALS ARE OF BUNA, VITON, AND TEFLON.

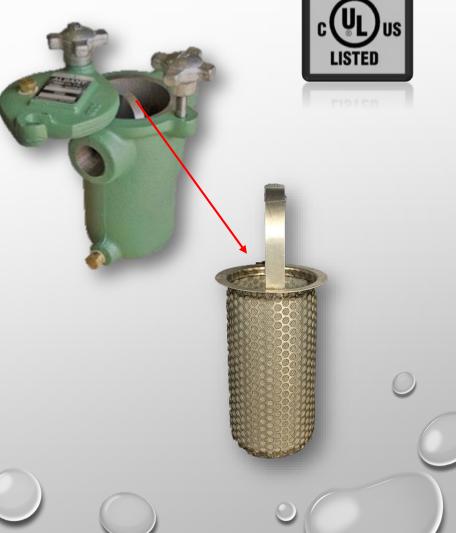




# SYSTEM COMPONENTS

### **Albany SBS Series Simplex Strainers**

- UNLIKE OTHER TYPES OF STRAINERS, THE BASKET IS REMOVED AND REPLACED THROUGH THE TOP OF THE STRAINER BODY WHICH PREVENTS THE SPILLING OF LIQUID DURING THE SERVICING OF THE STRAINER SCREEN.
- STANDARD BASKET SCREEN MATERIAL IS STAINLESS STEEL.
- STANDARD SCREENS AVAILABLE FROM 1/4" (PERFORATED) MESH DOWN TO 10 MICRONS.
- MAGNETIC INSERTS ARE OPTIONAL TO HELP ELIMINATE METALLIC FERROUS
  PARTICLES.
- THE DUPLEX VALVE FEATURE ALLOWS FOR CLEANING OR REPLACEMENT OF ONE SCREEN WITHOUT INTERRUPTING THE OTHER SCREEN (I.E. CONTINUOUS FLOW)
   BY SIMPLY ROTATING THE HANDLE 180 DEG. AND POSITIONING IT OVER THE IN-SERVICE CHAMBER.
- ALSO AVAILABLE, AS AN OPTION, ARE DIFFERENTIAL PRESSURE INDICATORS TO MONITOR TO BASKET CONDITION AND PROVIDE A WARNING (BOTH LOCAL AND REMOTE) THAT CLEANING IS REQUIRED.





### SYSTEM COMPONENTS

### ACM ULC Certified PLC Controller with Automated Polishing Cycles

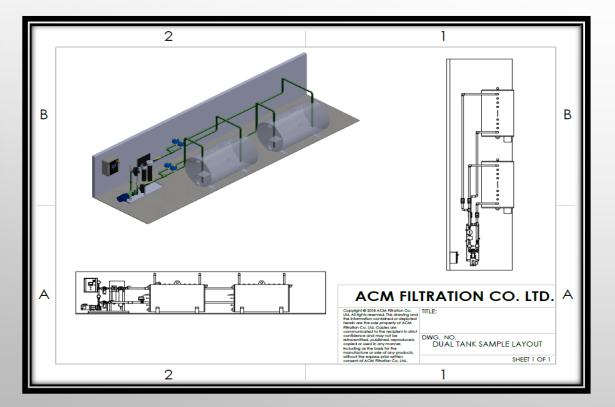




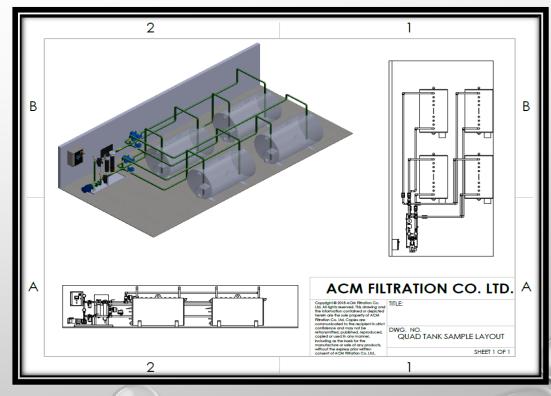
## ACM DIESEL FUEL FILTRATION & POLISHING SYSTEM

ACM Filtration Multi-Tank System is achieved with the use of our ULC Certified PLC Controller and Motorized Valves.





ACM DUAL-TANK SYSTEM EXAMPLE



ACM QUAD-TANK SYSTEM EXAMPLE



### FOR ADDITIONAL INFORMATION AND QUESTIONS PLEASE CONTACT



### **Gavin King**

**T** 905.853.3037 **C** 705.229.7549 gavin@acmfiltration.com

> Newmarket, ON, CA Buffalo, NY, USA

acmfiltration.com