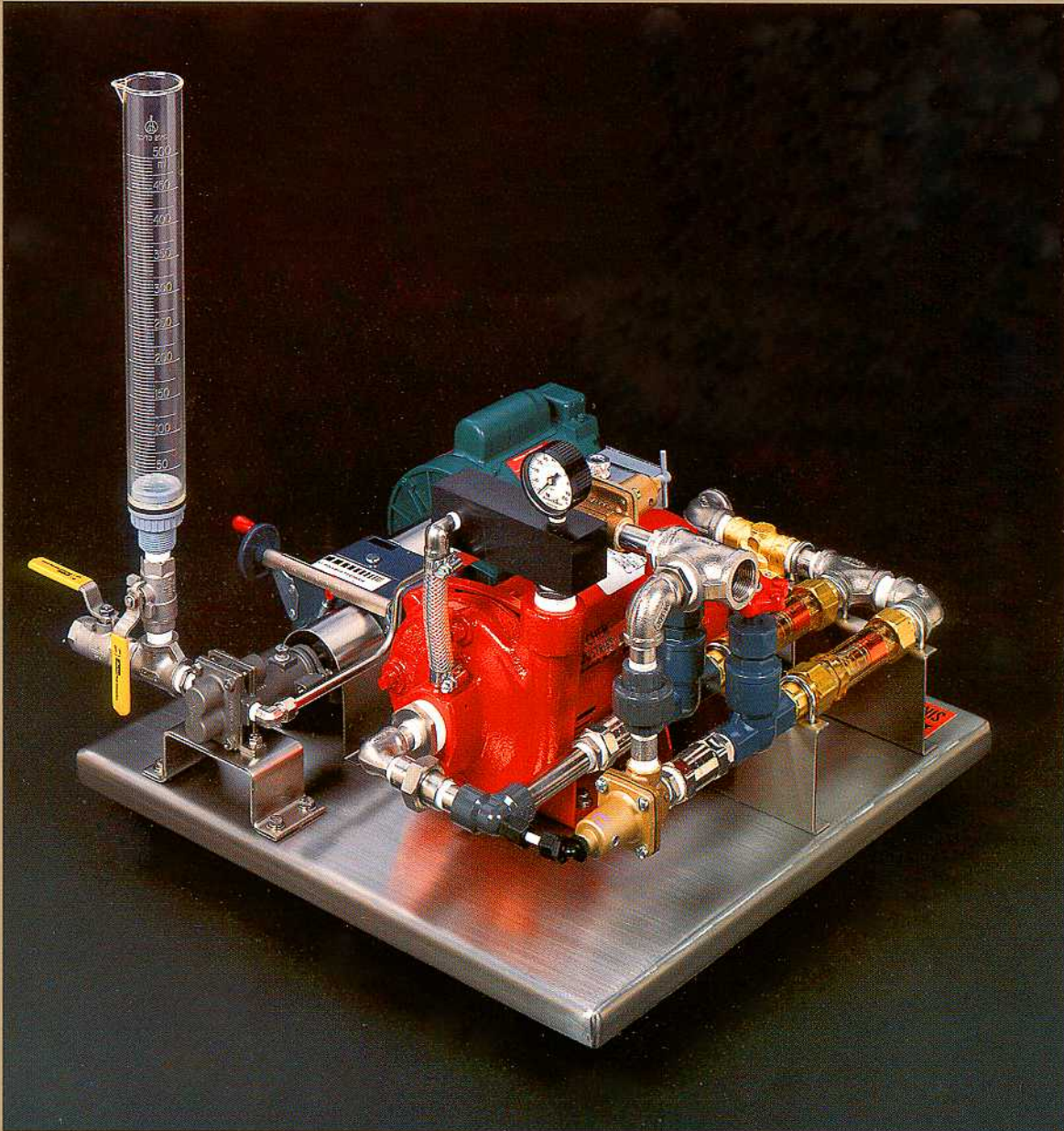


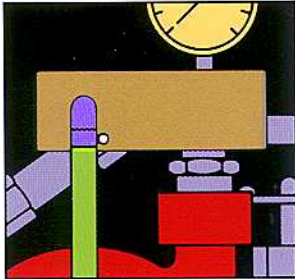
AnCAT®  **SERIES**



POLYMER PROCESSING AND CONTROL



AnCAT® G SERIES



The G-Series AnCAT® is a complete liquid polymer processing system. The G-Series automatically inverts, dilutes and activates dispersion, emulsion and solution forms

of commercially available polymers. The G-Series can be used as a stand-alone system or as the principal processing component in a more elaborate polyelectrolyte processing and delivery program.

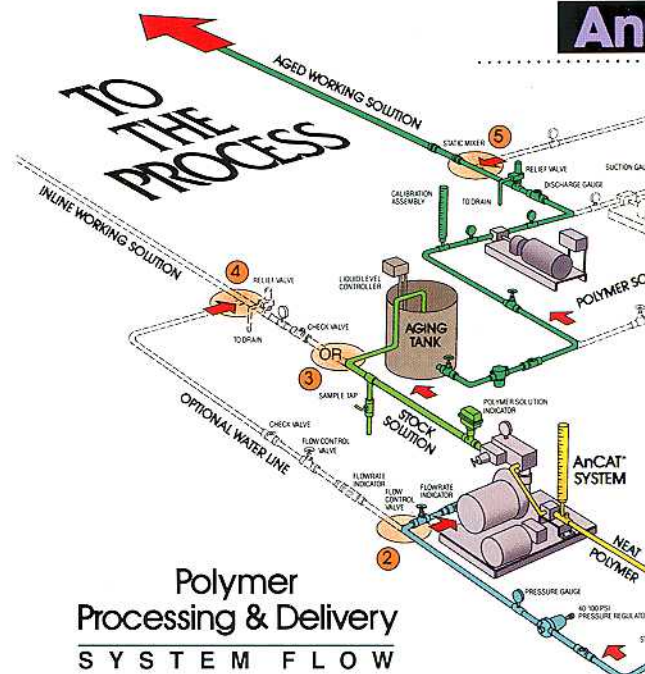
The polymer flow path, as shown in the System Flow Illustration, for conditioned aqueous polymer will depend on the characteristics of the polymer selected and the requirements of the specified application. AnCAT processing converts the neat liquid polymer into a homogeneous aqueous polymer solution for delivery directly to process or aging tank where polymer activity development, activation, continues.

OPERATION—The G-Series AnCAT employs rotary-gear-type polymer injection into its four-stage, hydraulic-mixing circuit. Liquid polymer and water combine in the four stages of premixing, blending, recycling and control to disperse, structure and condition the polymer for maximum activity development in dilute polymer solution form.

The entire AnCAT process is controlled by the unique pressure-gradient/hydraulic-regulating system. Kinetic acceleration, polymer dispersion, viscosity equalization, polymer seeding, pressure equilibrium and polymer structuring are just some of the chemical and physical principles which influence the production of optimally conditioned, active polymer solution.

INSTALLATION—AnCAT G-Series systems can be mounted on or at the base of any suitable polymer container. Flooded suction polymer supply is always preferred and recommended for maintenance-free installations. A clean water source, 40 to 100 psig, and a properly grounded electrical supply, single phase/115 VAC/60 hertz or three phase/460 VAC/60 hertz is standard with other distribution systems, compatible voltages and frequencies available upon request. No special tools or accessories are required for installation and start-up of AnCAT G-Series systems.

CAPACITY—G-Series AnCATs process up to 600 gpd Mannich or PAM solution polymers and up to 300 gpd polyacrylamides in the emulsion or dispersion form. Polymer solution flowrates to 8.0 gpm (480 gph) at 0.2 to 2.0% active polymer concentrations are standard



Polymer Processing & Delivery SYSTEM FLOW

while solution flowrates to 16 gpm (960 gph) are typical for 'SD' (secondary dilution) versions at 0.1 to 2.0% solution strength levels.

Flowrates to 10 gpm (600 gph), standard G-Series, and 20 gpm (1200 gph), SD versions, are available as are special systems with active solution strength concentrations to 4.0% for emulsions and 10% for Mannichs. For additional information on applications requiring special flowrates or especially high solution concentrations, consult NORCHEM.

VISCOSITY—All G-Series AnCATs incorporate rotary-gear-type pumps for liquid polymer injection. Maximum viscosity is limited to each gear pump's ability to handle the specified liquid polymer.

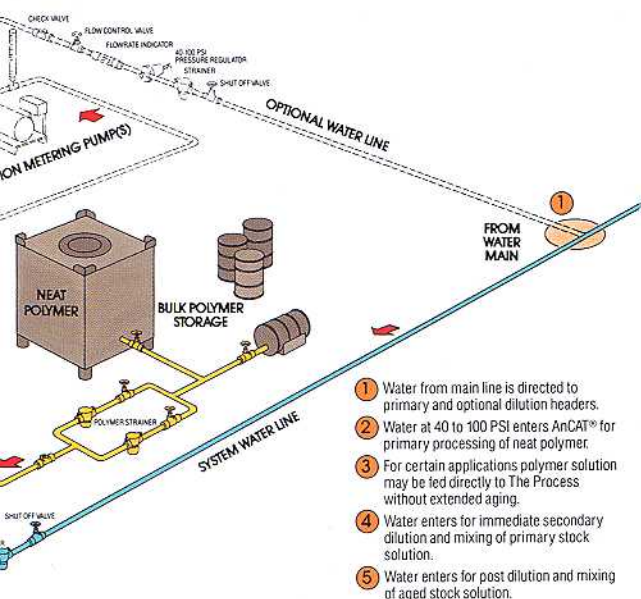
In general G-Series AnCATs are capable of injecting liquid polymer at 'effective' (pumping) viscosities to 25,000 cps where apparent viscosities may be 2 to 4 times greater than the effective viscosity seen by the AnCAT's liquid polymer injection module.

CONSTRUCTION—AnCAT systems are available in a variety of materials of construction which are compatible with all forms of commercially available liquid polymers. NORCHEM's standard for G-Series systems is stainless steel construction.

Each G-Series AnCAT, unless otherwise specified, is built on a stainless steel base with stainless steel supports, piping and brackets. The liquid polymer injection module is 316 stainless steel while the booster module is cast iron, unless special materials are requested. Waterside wetted components include: stainless steel, cast iron, brass and polysulfone. Polysulfone wetted components include: carbon steel, stainless steel and teflon. Other materials, consult NORCHEM.

DRIVE SPECIFICATIONS

BOOSTER MODULE—Standard motor, 1/2 HP, 3450 RPM, Drip Proof, (TEFC, Special/Chemical Duty and



high performance polymer system imaginable.

The EPIC's laser operated controller employs a combination of laser light scattering and absorption principles to precisely control the polymer solution concentration to $\pm 0.1\%$. The EPIC incorporates laser imaging into the AnCAT polymer processing circuit to ensure exact polymer conditioning regardless of neat polymer or dilution water fluctuations. The EPIC is your guarantee of superior polymer performance.

hazardous locations, 'Explosion Proof', consult NORCHEM.)

INJECTION MODULE— Standard motor, 1/4 HP, 1725 RPM, Totally Enclosed with constant torque, fully adjustable vari-drive. (Special duty, SCR variable speed and AC variable frequency drives, consult NORCHEM.)

POWER REQUIREMENTS— Standard service, single phase, 115 VAC, 60 hertz, 20 AMPS. Other voltages and frequencies available, consult NORCHEM.

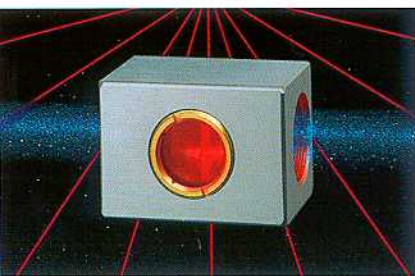
OPTIONS/ACCESSORIES

The G-Series AnCAT is available in three liquid polymer capacity ranges: 100, 300 and 600 gpd. Polymer solution deliveries may vary from 0.5 to 20 gpm (extended range SD) depending on flowmeter, capacity, model (G-Series standard or SD version). See G-Series Capacity/Flow Specifications chart for suggested volumetric flowrate ranges.

G-Series systems come with liquid level control for aging or solution holding tanks; low-water alarm and failsafe and low-polymer alarm and failsafe options. These optional components are available loose or as part of NORCHEM's Tri-Control Panel; for other optional controls, consult NORCHEM.

NORCHEM EPIC™

The NORCHEM EPIC, Enhanced Polymer Imaging Control, introduces a new concept in fully automated polymer processing and control. The NORCHEM EPIC combines proven AnCAT polymer processing with new laser imaging technology to create the most reliable,



G-SERIES CAPACITY/FLOW SPECIFICATIONS

MODEL NUMBER	LIQUID POLYMER (GPD)	PRIMARY SOLUTION (GPM)	SECONDARY SOLUTION (GPM)	TOTAL SOLUTION (GPM)	SOLUTION STRENGTH (% CONC.)
054G(S)*-100	100	4.0		4.0	
054G(S)*-300	300	4.0		4.0	0.2 to 2.0
054G(S)*-600	600	4.0		4.0	
054G(S)*-100SD**	100	4.0	4.0	8.0	
054G(S)*-300SD**	300	4.0	4.0	8.0	0.1 to 2.0
054G(S)*-600SD**	600	4.0	4.0	8.0	
058G(S)*-100	100	8.0		8.0	
058G(S)*-300	300	8.0		8.0	0.2 to 2.0
058G(S)*-600	600	8.0		8.0	
058G(S)*-100SD**	100	8.0	8.0	16.0	
058G(S)*-300SD**	300	8.0	8.0	16.0	0.1 to 2.0
058G(S)*-600SD**	600	8.0	8.0	16.0	

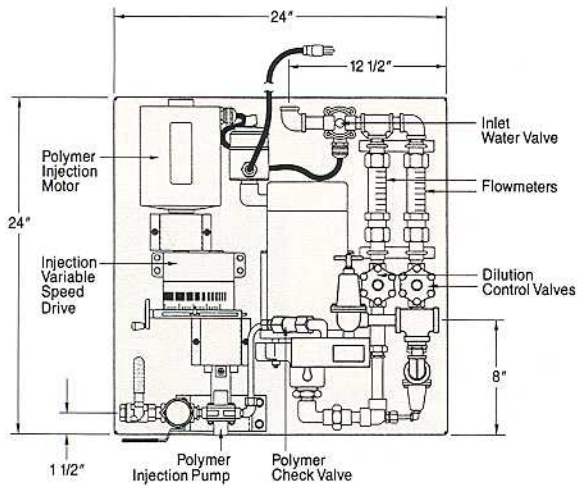
*Stainless Steel Liquid Polymer Injection Module (Optional)
 **Secondary Dilution Header Inlet Water Pressure: 40 to 100 PSI
 Solution Discharge Pressure: 100 PSI max. or calculated by adding 20 PSI to available inlet water pressure.



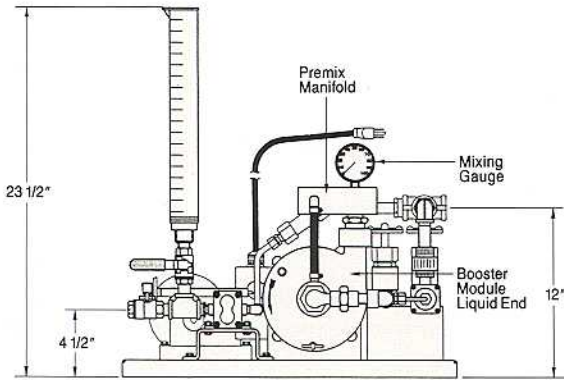
MODEL 05G

AnCAT 05G-SD Series

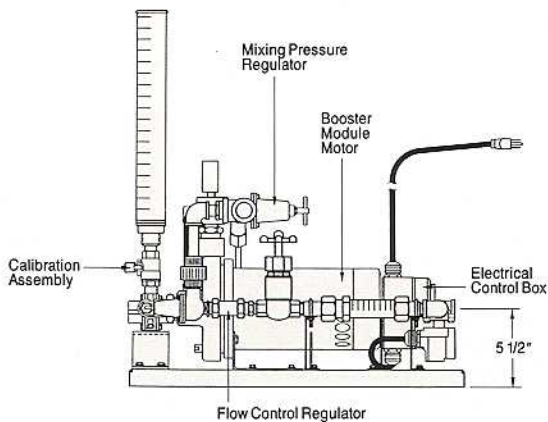
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P L A N V I E W



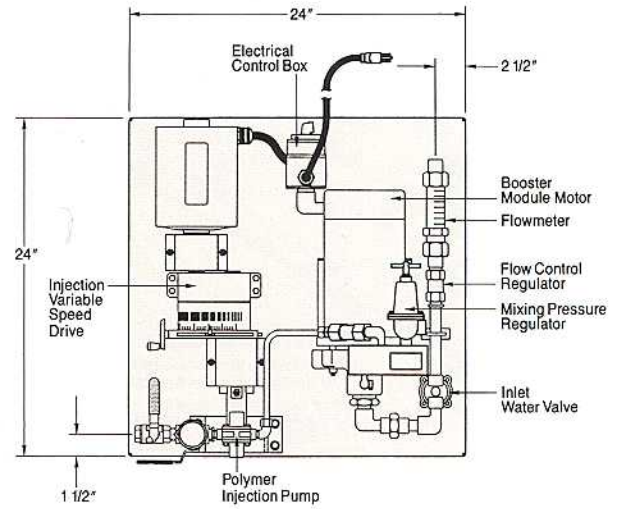
F R O N T V I E W



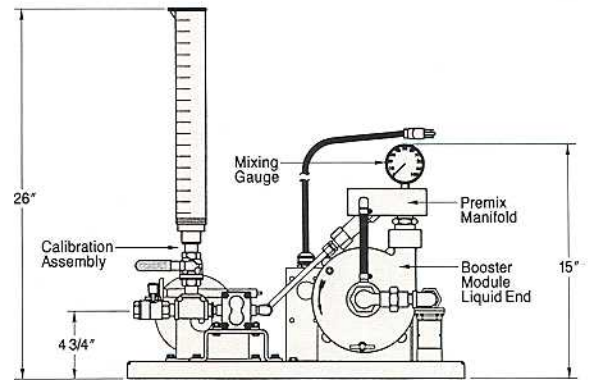
S I D E V I E W

AnCAT 05G Series

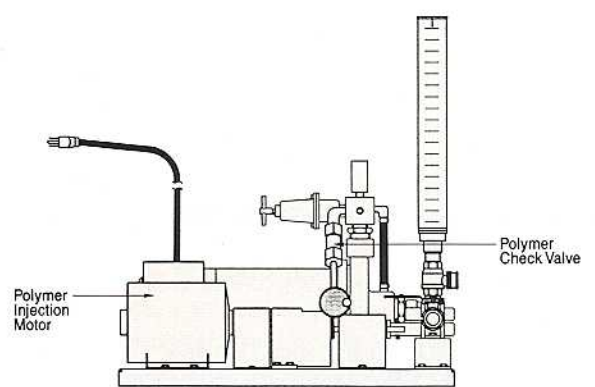
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P L A N V I E W



F R O N T V I E W



S I D E V I E W

Dimensions are approximate and will vary slightly with optional arrangements.



NORCHEM INDUSTRIES