



Toll Solutions

RESPONSIBLE SOLUTIONS FOR YOUR CHEMICAL MANUFACTURING
AND OUTSOURCING NEEDS



LOCATED IN DUNCAN, SC, RIGHT OFF INTERSTATE 85, TOLL SOLUTIONS' MODERN FACILITIES INCLUDE REACTORS, BLENDING VESSELS, DISPERSION AND EMULSION VESSELS, SOLIDS HANDLING, MIXING EQUIPMENT, THAT ARE ADAPTABLE TO A WIDE RANGE OF CHEMICAL PROCESSING NEEDS.

CUSTOMERS CHOOSE TOLL SOLUTIONS BECAUSE OF OUR SUPERIOR COMBINATION OF CAPABILITIES, KNOWLEDGEABLE PEOPLE, DESIRE TO WORK WITH CUSTOMERS TO MEET THEIR NEEDS, AND GOOD VALUE. WE WILL WORK TO EARN YOUR BUSINESS AND BECOME YOUR PREFERRED PROVIDER



THE RIGHT PARTNER, WITH THE RIGHT PEOPLE AND THE RIGHT EQUIPMENT.

PROCESSING AND SUPPORTING EQUIPMENT

Processing Equipment - all 304 stainless steel

REACTOR ROOM

- CLASS 1, DIVISION 2 ELECTRICAL REQUIREMENTS
- FOAM FIRE SUPPRESSION SYSTEM

REACTOR-1 (R-1)

- 3300 GALLON TURBINE AGITATOR, PRESSURE RATED, VACUUM, INTERNAL COILS AND JACKETED

REACTOR-2 (R-2)

- 3300 GALLON TURBINE AGITATOR, PRESSURE RATED, OVERHEAD CONDENSER, VACUUM, INTERNAL COILS AND JACKETED

REACTOR-3 (R-3)

- 3300 GALLON TURBINE AGITATOR, PRESSURE RATED, OVERHEAD CONDENSER, VACUUM, INTERNAL COILS AND JACKETED



PROCESSING AND SUPPORTING EQUIPMENT

Processing Equipment - all 304 stainless steel

Dispersion & Emulsion Vessels

M-1: 1,450 gallon with Cowles blade and sweep agitator, jacketed

M-3: 1,750 gallon with Cowles blade and sweep agitator, jacketed

M-4: 3,000 gallon vessel, turbine agitator

M-6: 3,300 gallon vessel, turbine agitator

M-7: 1,500 gallon vessel with Cowles blade and sweep agitator, jacketed

M-10: 1,520 gallon vessel, turbine agitator

M-11: 5,370 gallon vessel, Cowles blade and sweep agitator, jacketed

M-12: 5,500 gallon vessel, turbine agitator

M-13: 1,850 gallon vessel, turbine agitator

M-14: 600 gallon vessel, turbine agitator

M-20: 5,300 gallon vessel, turbine agitator

M-21: 5,500 gallon vessel, turbine agitator, jacketed

M-22: 2,800 gallon vessel, turbine agitator, jacketed

M-24: 5,500 gallon vessel, turbine agitator

M-25: 5,800 gallon vessel with Cowles blade and sweep agitator, jacketed

SUPPORTING EQUIPMENT

Storage Tanks

36 stainless steel (all 304) storage tanks most 8,000 gallons

Filtration

Various cartridge and bag filters, Sparkler filters, and filter press

Solids Handling

Powder screening and Super sack charging systems

High Sheer/ Particle Size Reduction

IKA & Silverson rotor stator powder dispersion systems

Kady mill

Ross mixer & Hills mixer

Cherry Burrell and Gaulin homogenizer

Red Head vertical bead mill

Deionization and Ozonation Water Treatment

Extensive Analytical and Development Laboratory Capabilities

Pilot-Scale Cowles Blade Mixing Systems (275 gallons)



TOLL SOLUTIONS PROVIDES PROCESS DEVELOPMENT AND CUSTOM MANUFACTURING TO MEET OUR CUSTOMERS REQUIREMENTS

CHEMICAL REACTIONS – Creating new molecular entities through chemical reactions of gaseous, liquid or solid raw materials; specialization in silane and silicon chemistry and free radical polymerization

DISPERSIONS – SUSPENDING A SOLID IN LIQUID IN A RELATIVELY STABILIZED FORM, THROUGH HIGH SHEAR AGITATION AND MILLING

EMULSIONS – SIMILAR TO DISPERSIONS – INCLUDES A DISPERSION (SOLID AND LIQUID) AND WATER, WITH HIGH SHEAR MIXING, INCLUDING CHALLENGING EMULSIONS

PARTICLE SIZE REDUCTION – USING MECHANICAL MEANS TO REDUCE PARTICLE SIZE IN SOME TYPE OF CARRIER LIQUID THROUGH HOMOGENIZATION, MILLING, ROTOR STATOR OR SIMILAR MEANS, YIELDING HIGHER-PERFORMANCE PRODUCTS AND INCREASING STABILITY

CHEMICAL BLENDING – MIXING SOLIDS AND LIQUIDS – NOT A REACTION BUT A SOLUTION, INCLUDING COMPOUNDING

HIGH-SHEAR MIXING – MIXING FOR ADDED STABILITY THROUGH PARTICLE SIZE CONTROL, TO PROVIDE LONG TERM STABILITY TO OTHERWISE UNSTABLE EMULSIONS

MANUFACTURING CAPABILITIES

SOLVENT DILUTION, STABLE LIQUID-POWDER SUSPENSIONS
PREPOLYMER AND STABILIZED POLYMER EMULSIONS, SILICA
DISPERSIONS, SILICONE EMULSIONS, COATING MIXTURES,
PARTICLE SIZE MODIFICATION, HOT MIXES WITH INERT
ATMOSPHERES, FIFRA BLENDING FOR AGRICULTURAL PRODUCTS



QUALITY AND SAFETY

- TOLL SOLUTIONS IS ISO 9001- 2015 CERTIFIED
- EPA 88503-SC-001 REGISTERED ESTABLISHMENT
- SAFETY AND ENVIRONMENTAL RECORDS – TOLL SOLUTIONS HAS HAD ONLY ONE NOTABLE ACCIDENT IN 15 YEARS
- FOR AUTOMOTIVE PRODUCTS, WE FOLLOW ISO/ TS 16949 TO MEET PRECISE AUTOMOTIVE INDUSTRY REQUIREMENTS AND APPLICATIONS, INVOLVING SPECIFIC FORMS AND PROCEDURES
- QUALITY CONTROL – OUR QC LABORATORY PROVIDES FOR TIMELY, ACCURATE, COST-EFFECTIVE TESTING THAT ENSURES EVERY PRODUCT, FROM RAW MATERIAL TO FINISHED GOODS, MEETS ALL QUALITY REQUIREMENTS. USING A VARIETY OF ANALYTICAL INSTRUMENTATION, OUR EXPERIENCED EMPLOYEES PERFORM IN-PROCESS TESTING AND 100% INSPECTION ON FINISHED PRODUCT.
- ANALYTICAL CAPABILITIES – OUR SERVICES ARE BACKED BY EXTENSIVE ANALYTICAL CAPABILITIES BOTH IN TERMS OF EQUIPMENT AND EXPERIENCED ANALYTICAL CHEMISTS TO TAKE CARE OF YOUR REQUIREMENTS

SERVING A VARIETY OF MARKETS

TOLL SOLUTIONS
SERVES A WIDE
VARIETY OF MARKETS,
INCLUDING INDUSTRIAL,
COMMERCIAL, AND
CONSUMER
APPLICATIONS.
CONTINUING TO MEET
CUSTOMERS' EVOLVING
NEEDS



PULP AND PAPER CHEMICALS

- DEFOAMERS & TISSUE SOFTENERS

TEXTILE CHEMICALS

- WATER REPELLENTS, THREAD LUBRICANTS, FABRIC COATINGS, DEFOAMERS & SOFTENERS

AUTOMOTIVE SUPPLIERS

- FABRIC COATINGS, CUSTOM FORMULATIONS

AGRICULTURAL CHEMICALS

- FIFRA REGISTRATION FOR CHEMICAL MANUFACTURING, SPECIALTY FORMULATIONS

PLASTIC ADDITIVES

- COATINGS & RELEASE AGENTS

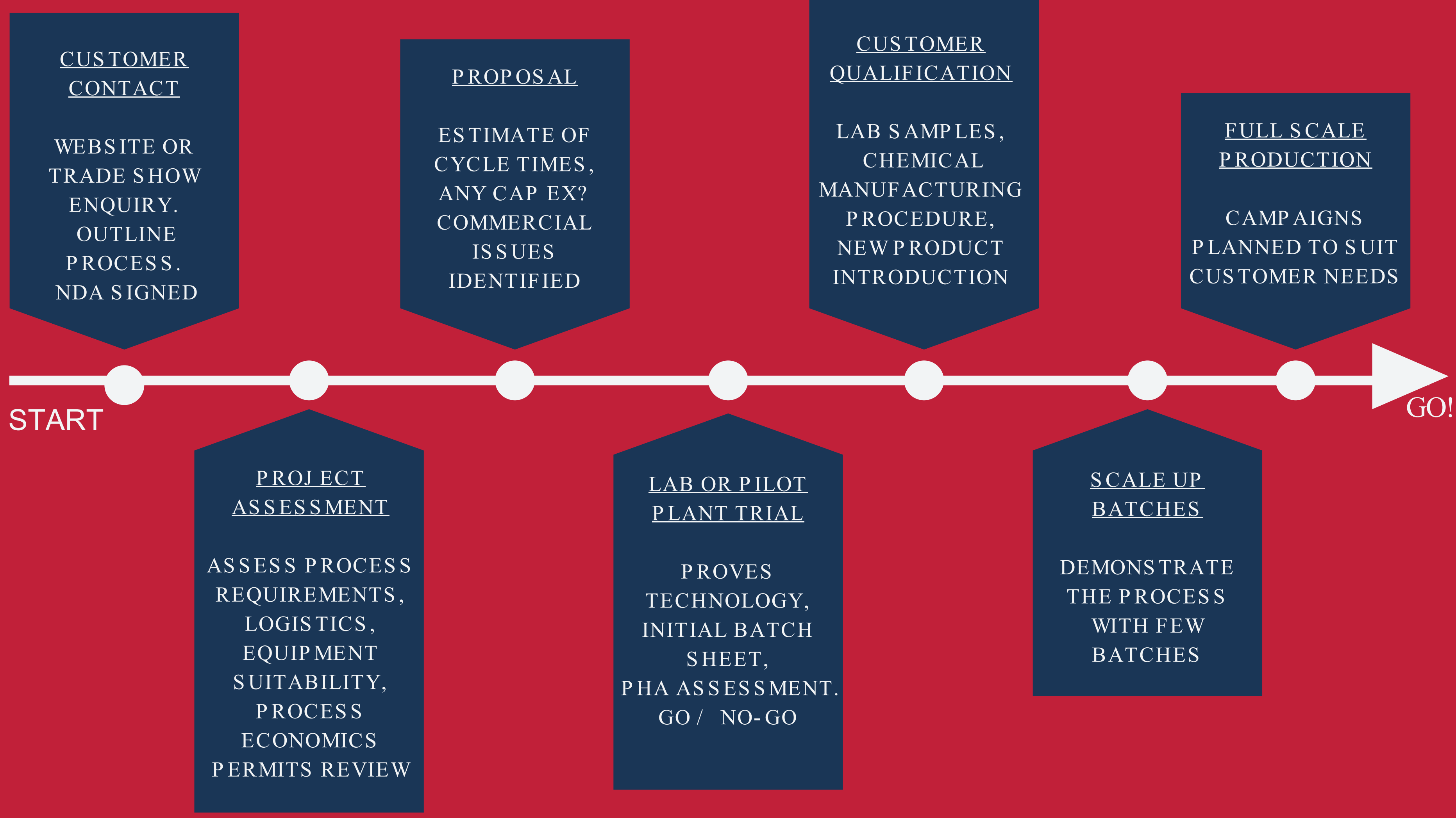
CONSTRUCTION CHEMICALS / COATING ADDITIVES / CONSUMER PRODUCTS

TOLLING BUSINESS APPROACH

A GLOBAL SUPPLIER OF CUSTOM AND TOLL MANUFACTURED CHEMICALS



LOCAL, OWNER OPERATED, FLEXIBLE DECISION-MAKING PROCESS — RESPONSIVE CUSTOMER SERVICE



CUSTOMER CONTACT

WEBSITE OR TRADE SHOW ENQUIRY.
OUTLINE PROCESS.
NDA SIGNED

PROPOSAL

ESTIMATE OF CYCLE TIMES,
ANY CAP EX?
COMMERCIAL ISSUES IDENTIFIED

CUSTOMER QUALIFICATION

LAB SAMPLES,
CHEMICAL MANUFACTURING PROCEDURE,
NEW PRODUCT INTRODUCTION

PROJECT ASSESSMENT

ASSESS PROCESS REQUIREMENTS,
LOGISTICS,
EQUIPMENT SUITABILITY,
PROCESS ECONOMICS
PERMITS REVIEW

LAB OR PILOT PLANT TRIAL

PROVES TECHNOLOGY,
INITIAL BATCH SHEET,
PHA ASSESSMENT.
GO / NO-GO

SCALE UP BATCHES

DEMONSTRATE THE PROCESS WITH FEW BATCHES

FULL SCALE PRODUCTION

CAMPAIGNS PLANNED TO SUIT CUSTOMER NEEDS

START

GO!



WHY CHOOSE TOLL SOLUTIONS?



WE VALUE LONG TERM RELATIONSHIPS

LONG TERM PARTNERSHIP
BUILDS MUTUAL TRUST AND
LOYALTY. TRANSPARENCY IS
ESSENTIAL IN EVERY STEP OF
THE PROCESS. WE ARE ALWAYS
STRIVING FOR CONTINUOUS
IMPROVEMENT.



STRONG CORE VALUES

CUSTOMERS TRUST TOLL
SOLUTIONS TO SAFEGUARD
THEIR TECHNOLOGY AND
MANAGE THEIR RISK. OUR
CUSTOMERS NEEDS AND
BEST INTERESTS ARE
PARAMOUNT.



WORK DIRECTLY WITH OWNER & DECISION MAKERS

- INDEPENDENT COMPANY
- FAMILY OWNED
- EXPERIENCED TEAM
- COMMITTED
- EXCELLENT SERVICE
- 150+ YEARS OF EXPERIENCE



Notable Awards



EMERGING MANUFACTURER OF THE YEAR FINALIST

SAFETY PROGRAM RECOGNITION AND COMMENDATION OF EXCELLENCE BY THE SOUTH CAROLINA CHAMBER OF COMMERCE

SBA SMALL BUSINESS EXPORTER OF THE YEAR

JOE WILSON - SMALL BUSINESS EXPORTER OF THE YEAR

SIGNUM SAFETY AWARD FOR NO INJURIES

MEMBER OF SOCMA



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JOE WILSON – PRESIDENT / OWNER

TREVOR KING – VICE PRESIDENT
OF BUSINESS DEVELOPMENT

JESSE HELVEY – VICE PRESIDENT
OF TECHNOLOGY

TONY JONES – VICE PRESIDENT OF
SALES

PAT MILLS – VICE PRESIDENT OF
OPERATIONS

THANKS FOR YOUR INTEREST IN



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