The New Polyurethane Tire Technology (PERFECTO)™

The new (Perfecto TM) Polyurethane Tire Technology has been invented by Polyurethane Chemical Formulas, Inc. It is now ready to be manufactured and marketed. The tire will be free of defects, and every tire will be certified with a photo of the internal structure of the tire. This tire technology will give all people the confidence of safety even if the tire loses its air. There will be no catastrophic loss of control of the vehicle.

TIRE TECHNOLOGY

Differences in Design

Polyurethane Tire	Rubber Tire
Perfectly Round	Not Perfectly Round
Perfectly Balanced	Not Perfectly Balanced
No Tread Separation	Tread Separation
Will Not Heat Up	Will Heat Up
Every tire will operate without air for 1000 miles plus at 80 MPH. Every tire will be an “Air-No Air” tire.	Only their Run-Flat Tire can operate without air for only 50 miles at 50 MPH. All the rest of the tires cannot operate without air.

TIRE TECHNOLOGY

Differences in Operational Costs

Polyurethane Tire	Rubber Tire
Better Rolling Resistance for Better Fuel Economy (49% Better Rolling)	Higher Fuel Costs
Better Wear at Any Durometer (Hardness) by 60%	More Wear
Hard for nails and glass to puncture the tread	Easy to Puncture
Less Material Waste- ¼ of 1%	High Material Waste- 5% to 10%
Lower Labor Cost- More Automation	High Labor Cost- Less Automation

TIRE TECHNOLOGY

Differences in Capital Equipment Cost

Polyurethane Tire	Rubber Tire
Capital Equipment Cost Less Equipment for 1 million tires per year --- 25 million U.S.	Capital Equipment Cost More Equipment for same 1 million tires per year---75 million U.S.
Less Space (square footage) required ---- 50,000 sq. ft. to manufacture 1 M tires per year	More Space (square footage) required---250,000 sq. ft. to manufacture 1 M tires per year
Energy Costs are Less---5 KWH for each tire	Higher Energy Costs--- 60 KWH for each tire
Quality Control Points---5	Quality Control Points--- Over 50

TIRE TECHNOLOGY

Differences in Environmental Issues

Polyurethane Tire	Rubber Tire
No Toxic Emissions are emitted during Manufacturing Process	Rubber produces Toxic Air Pollutants during Manufacturing Process
Polyurethane is easy to shred and put materials into other products	Rubber is difficult to recycle and extremely toxic
Polyurethane is inert in manufacturing, usage, and recycling into another product	Rubber is toxic in manufacturing, usage, and recycling into any other product

The Polyurethane Tire Technology using Richard A. Steinke's Patents and Chemical Formulas have passed all U.S. Department of Transportation (DOT) Standards in three different categories.

Federal Motor Vehicles

Tire Type	Safety Standard	Status
245/45R/17	FMUSS 109	Passed
245/45R/17	FMUSS 139	Passed
T115/60/21	FMUSS 129	Passed

Since then, Richard A. Steinke has finished the design of the manufacturing equipment, invented a new Tire Chemistry for the tires and invented a hoop system which will allow tires to run without air for thousands of miles. This technology is what we are presently going into production with.

Five Tires- 250 M Annually

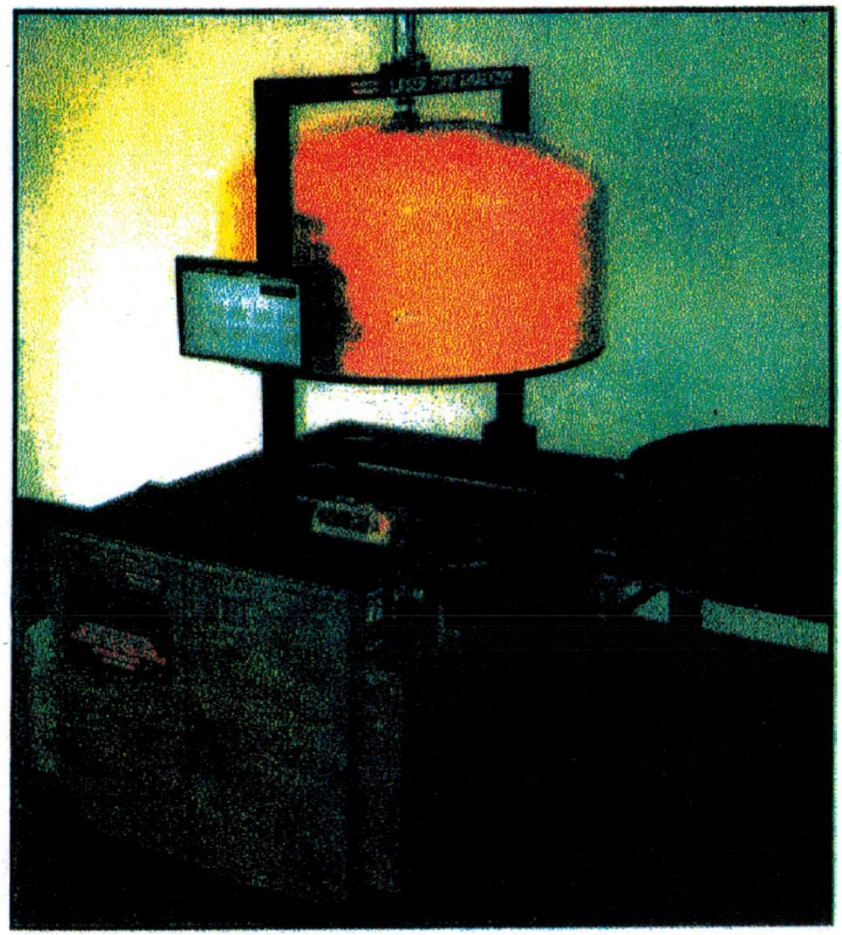
- **P205/55R16:** Hyundai/VW Jetta/Dodge Dart/Scion/Nissan Cube/Toyota Prius
- **P195/65R15:** Scion/Toyota Prius/Honda Civic/Subaru
- **P215/60R16:** Chevrolet Malibu/Nissan Altima/Toyota Prius
- **P215/55R17:** Nissan, Toyota, Mitsubishi
- **P195/55R16:** Fiat 500/Ford Fiesta S/Smart Car

Subject: Proposal No. DVS1220-9192-2

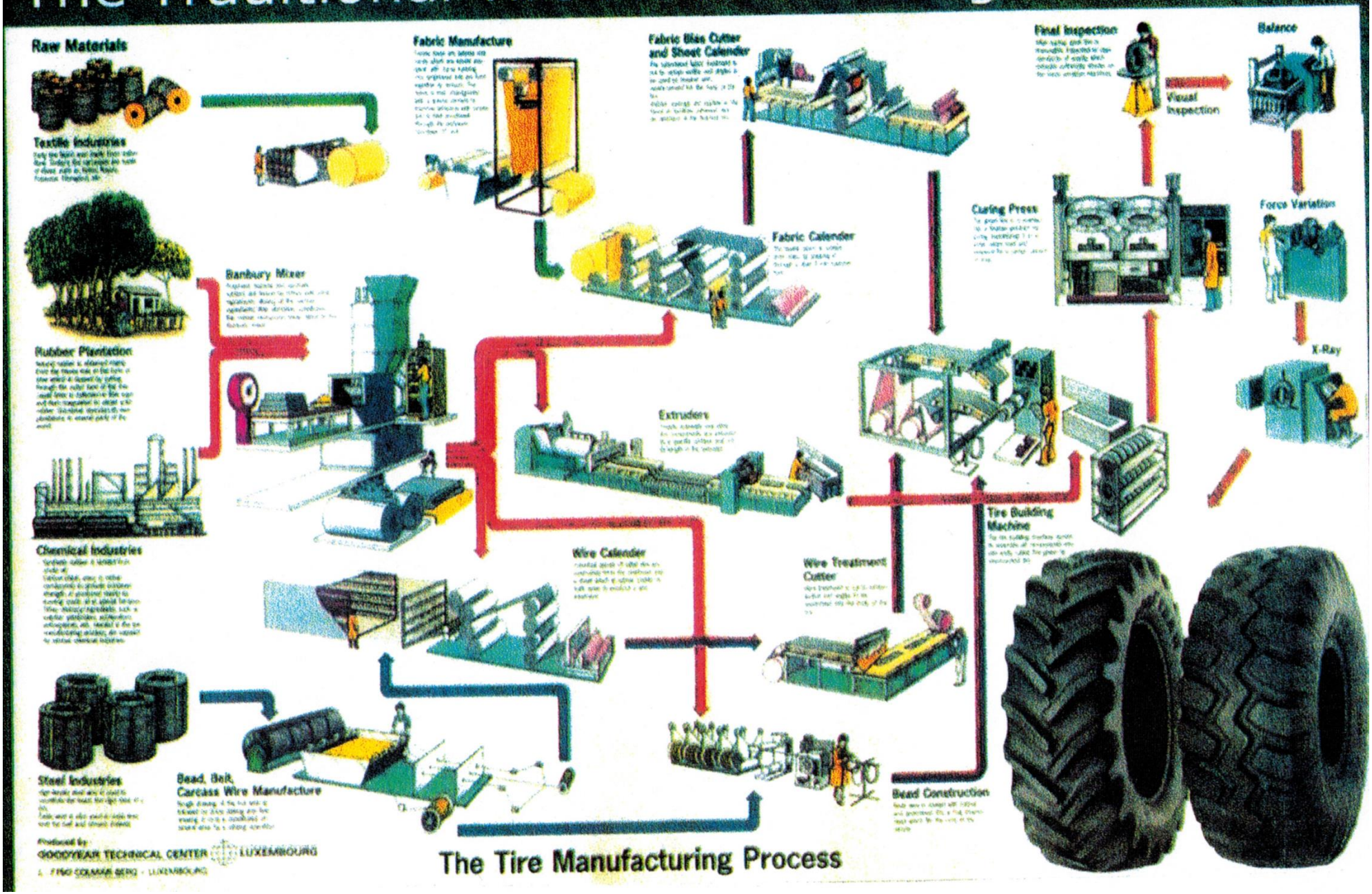
The **NEW DVS 1220 Differometric Tire Analyzer** is designed to inspect new and used passenger, light truck and commercial truck tires with a maximum weight of 260 lbs., bead diameter range between 13" (330mm) and 32" (813mm), and a maximum outside diameter of 46" (1168mm).

The base machine includes 4 cameras displaying four 90°+ images of the inside of the tire including the crown and most of the sidewall. *Bead to bead inspection is an option, however due to narrow bead to bead distance, it may be necessary to spread some tires prior to inspection.* These results are displayed in 8 images, 4 looking up at 90°+ wide each and 4 looking down at 90°+ wide each. Figure #1 on the next page shows this.

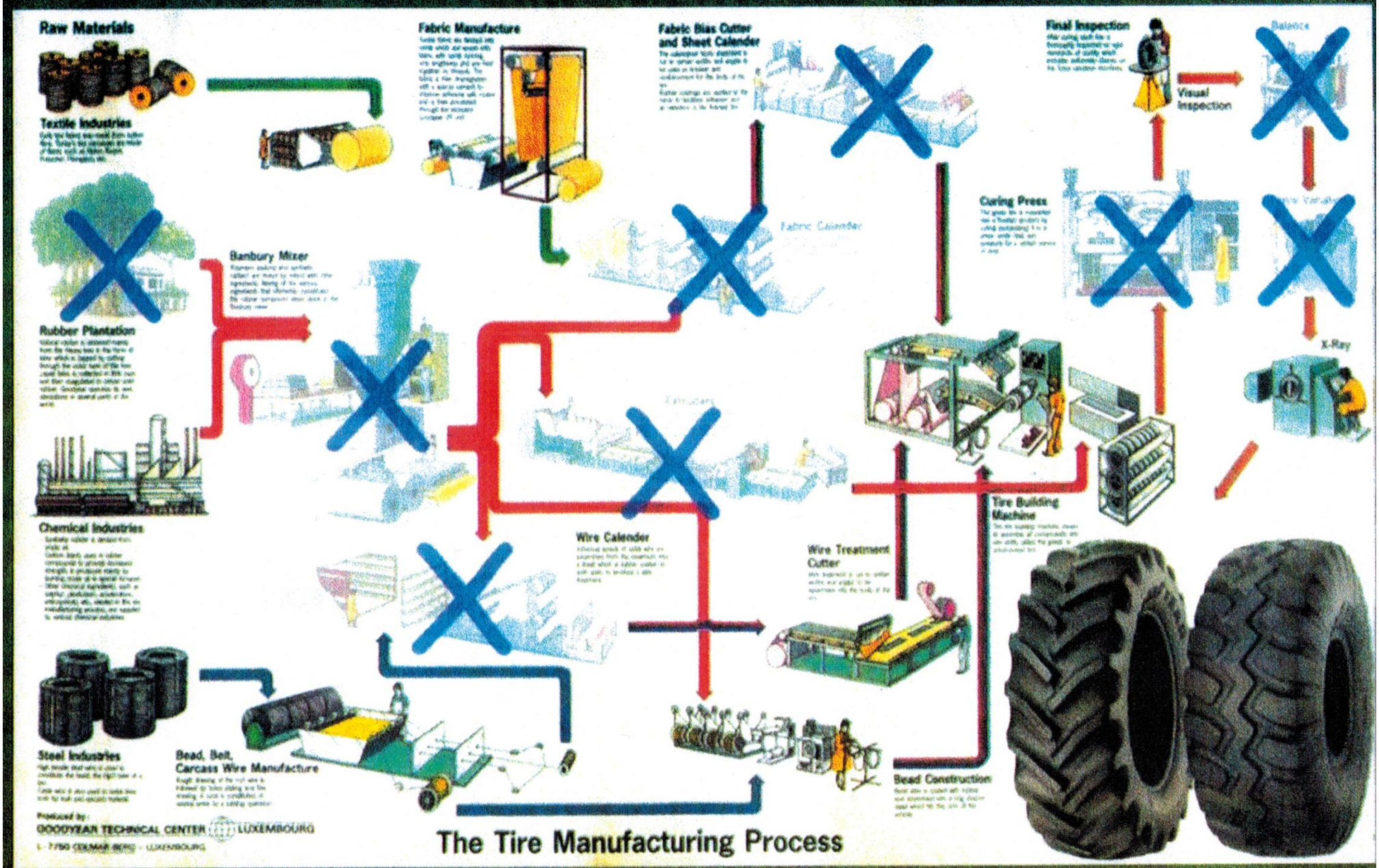
Cycle time is dependent on tire profile settings. Average +/- 1 min. 30 sec.
Test results may be viewed in 3 different ways. Figure #2 on the next page shows this.

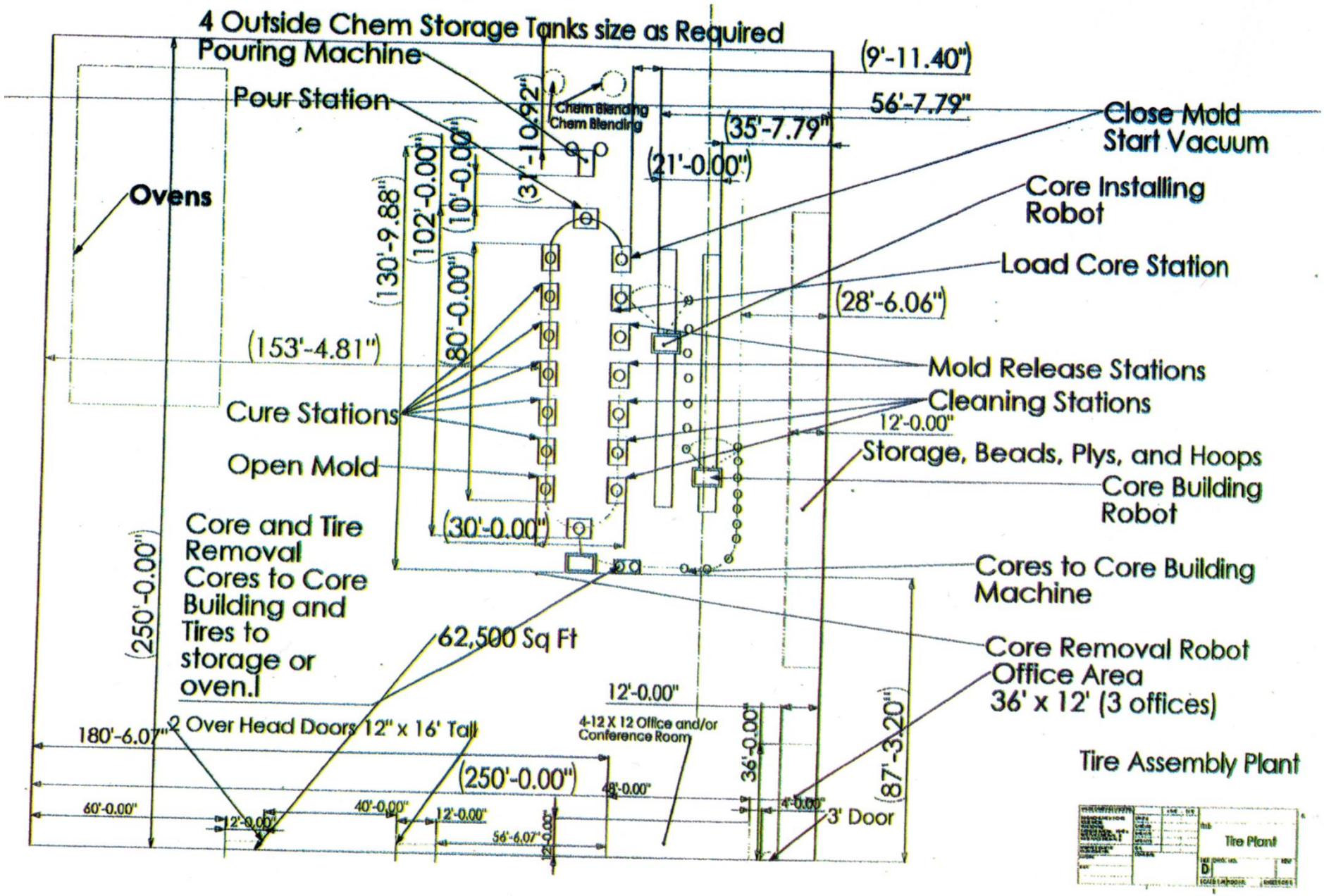


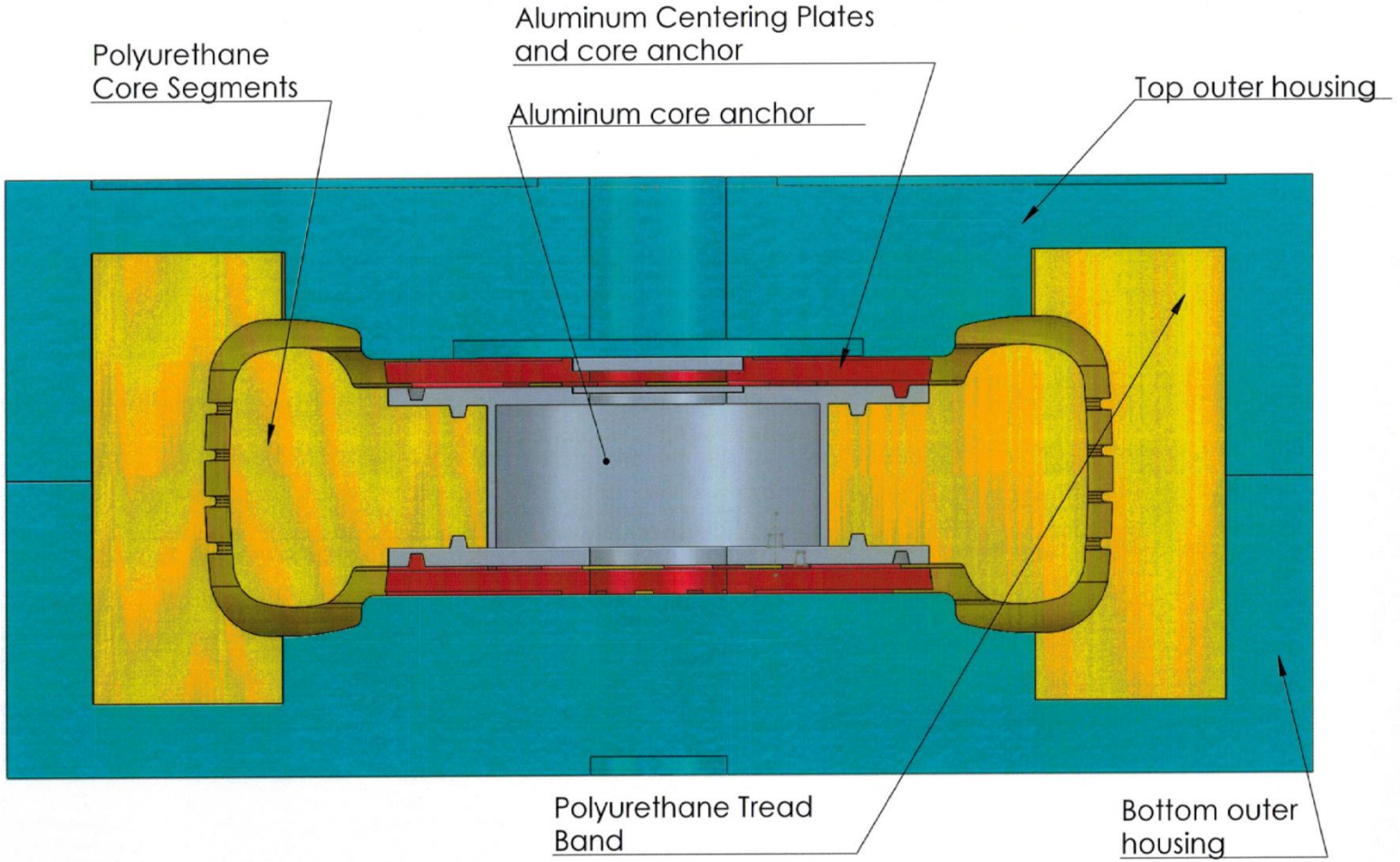
The Traditional Tire Manufacturing Process



A Simpler Process with Polyurethane Elastomer




4 Outside Chem Storage Tanks size as Required
Pouring Machine
Pour Station
Ovens
Chem Blending
Chem Blending
(9'-11.40")
56'-7.79"
(35'-7.79")
(21'-0.00")
(31'-10.92")
(130'-9.88")
(102'-0.00")
(10'-0.00")
(80'-0.00")
(153'-4.81")
Cure Stations
Open Mold
(30'-0.00")
(250'-0.00")
Core and Tire Removal Cores to Core Building and Tires to storage or oven.
62,500 Sq Ft
Close Mold Start Vacuum
Core Installing Robot
Load Core Station
(28'-6.06")
Mold Release Stations
Cleaning Stations
12'-0.00"
Storage, Beads, Plys, and Hoops
Core Building Robot
Cores to Core Building Machine
Core Removal Robot
Office Area
36' x 12' (3 offices)
12'-0.00"
4-12 X 12 Office and/or Conference Room
36'-0.00"
(87'-3.20")
4'-0.00"
3' Door
180'-6.07"
2 Over Head Doors 12" x 16' Tall
(250'-0.00")
48'-0.00"
60'-0.00"
12'-0.00"
40'-0.00"
12'-0.00"
56'-6.07"
12'-0.00"
Tire Assembly Plant
Tire Plant
D



Polyurethane Mold with 4 Aluminum holding Plates
This mold can do vacuum method or spin method


X
Y
Z


X
Y
Z