A TechForAg *'Ready-To-Milk'* Modular Parlor

Model: Dbl. 10 Original Germania ProTime I HerringBone - Remanufactured

Key Features: **Rapid Exit - Automatic Indexing - All Stainless**

Prepared For: **Website #120 - Proposal # 050311-1**

(Picture shows typical ProTime I parlor, for illustration only)

Dbl. 10 installed at the new Armbruster Family Dairy near, Muscoda, WIS, August 2006.

Qty	*Units*	*Description*	*Cost to End-user*

Original Germania ProTime I Stalls - Rapid Exit

Remanufactured

- All stainless RumpRails; 45" spacing
- (3) Support posts per side - stainless
- *Rapid Exit* Brisket Bars - stainless

20	**Stalls**	- Auto-Indexing (w/(4) 3" x 10" stainless Cylinders)	**$**	**41,429**

1st Stall Group together with Exit Gate to be removable for easy expansion later on

Modules to be 53" wide with 10" Indexing System to accommodate 1,800 lbs + Cows

If one of them goes down from milk fever you can easily get to her with the skid loader.

Left: **Dbl. 12 Brisket Bar in indexed position.** ***Right:*** **Brisket Bar in Rapid Exit position**

Automated Cow Traffic Controls

- (4) 3" x 10" stainless Cylinders for Indexing
- (2) 3" x 10" stainless Cylinders for Entrance Gates

2 Groups - (2) 3" x 10" Cylinders for Exit Gate

Included with Stalls

All-stainless TechForAg cylinders are easy to service. Just remove (4) bolts....

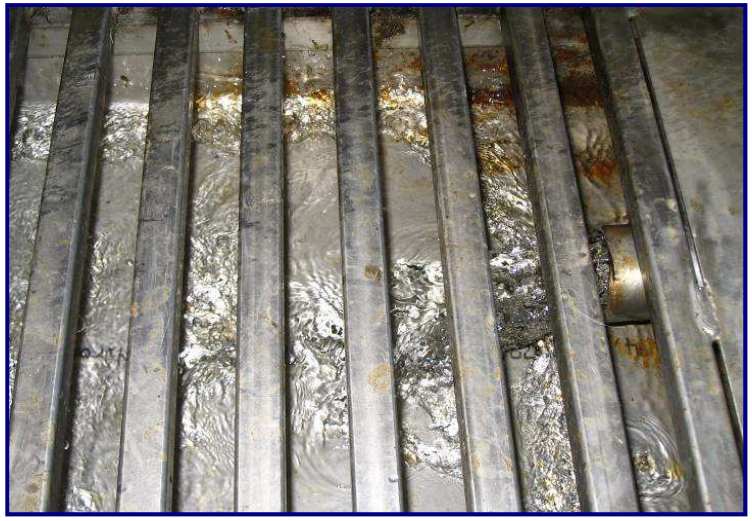
Cow Traffic Controls at last stalls on either side of parlor. Plus (2) remote panels in front.
5-Button Crowd Gate controls on one side only. Stainless cylinders operate all Gates & Automatic Indexing

20 *Stalls*

All-Stainless Gutter and Curbing;
Original Germania Grates - galvanized

All-in One Welded Structure

$ 7,143



15" x 11 ft x 11 ga *Extra* Cross-Over Channels - New!

Installed at each end of pit and from the parlor into the Machine Room

3 Units

$ 2,996

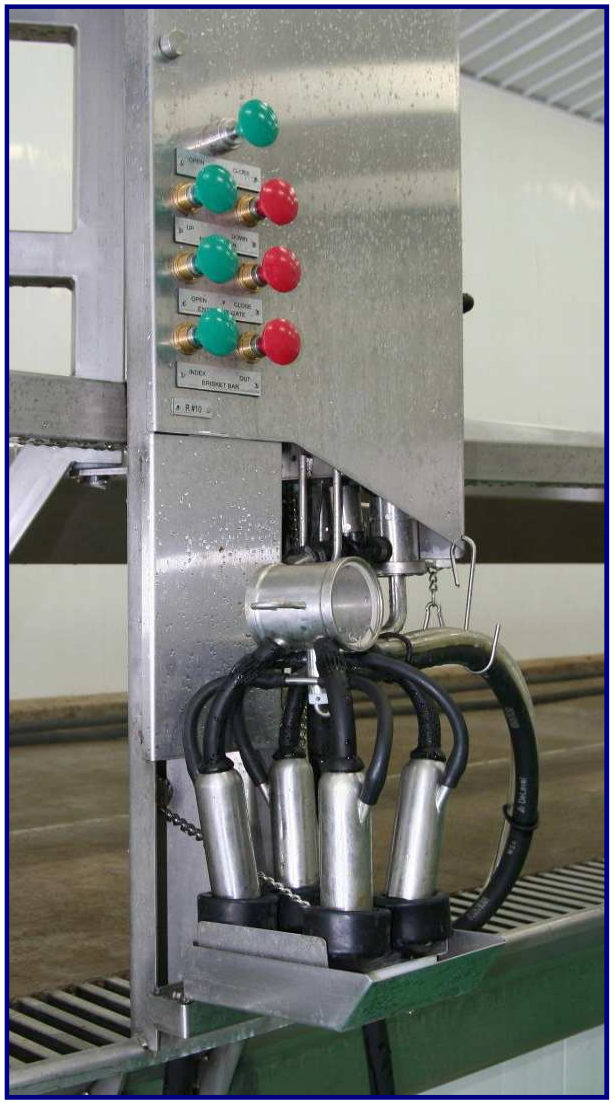
Air Powered CIP Jetter Cup Holders

20 *Units*

Single push button operated - "Now you see them - then you don't"

Match Jetter Cups to Inflation - *Brand & Model #* _____

Cost included in price of Stalls



Automated Jetter Cup Holders - open for wash-up….and closed for milking

Newest version - no more rubber cups to buy! See 'Optionally Available'

If you are milking 3X in a double 10, push-button operated CIP Cup Holders eliminate 120 manual operations per day, stashing and retrieving CIP Cups

		HERITAGE		
		All-Stainless **Heavy Duty All-Air Operated Crowd Gate - New**		
	24 ft	**Gate! With Automatic Manure Scraper**		
1	x 90 ft	**(There may be a slight upcharge for Gates wider then 24 ft)**	**$**	**27,250**

		C-4 x 6.5 lbs Crowd Gate Channel - New!		
		Welds very straight over 5 ft Span/Distance between Vertical Posts - Does not require any other re-enforcement or support; Channel will be cold		
140	**ft**	**galvanized**	**$**	**2,000**

Heavy Duty, Germania-Style Crowd Gate; Air-Powered Gear Motor - no electric controls what-so-ever. Lifts anywhere in Holding Pen and returns overhead cows to rear of pen. Air Motor shuts off automatically, both on front and back.

Heritage Gates up to 29 ft wide come with 4" easy-to-service all-stainless cylinders

Holding Pen Fence, galvanized

with 3" verticals @ 5 ft on center per 20 ft section of fence;
(4) 1 1/2" Pipe Horizontals @ 12" o/c

Normally, your Contractor provides the Holding Pen Fences.

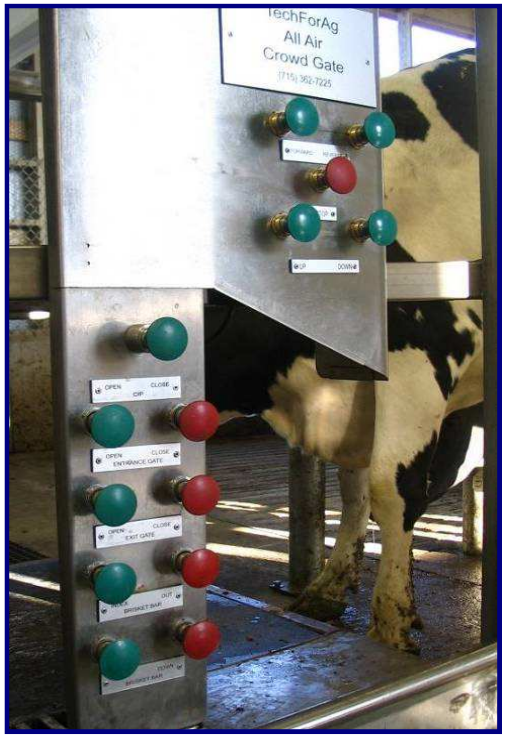
0	**ft**	**We'll provide them if he doesn't want to or can't @ $74/ft les**	**$**	**-**

2 x 10 ft V-Lane Fences from H.P. into Parlor…

0	**ft**	**@ $74/ft less 15%**	**$**	**-**

Three Crowd Gate Control Stations:

Cost include with Crowd Gate



Left: **Main Control station in back of parlor;**

Center: **Remote Controls in back of Holding Pen**

Right: **Two extra buttons in front of parlor to reduce walking**

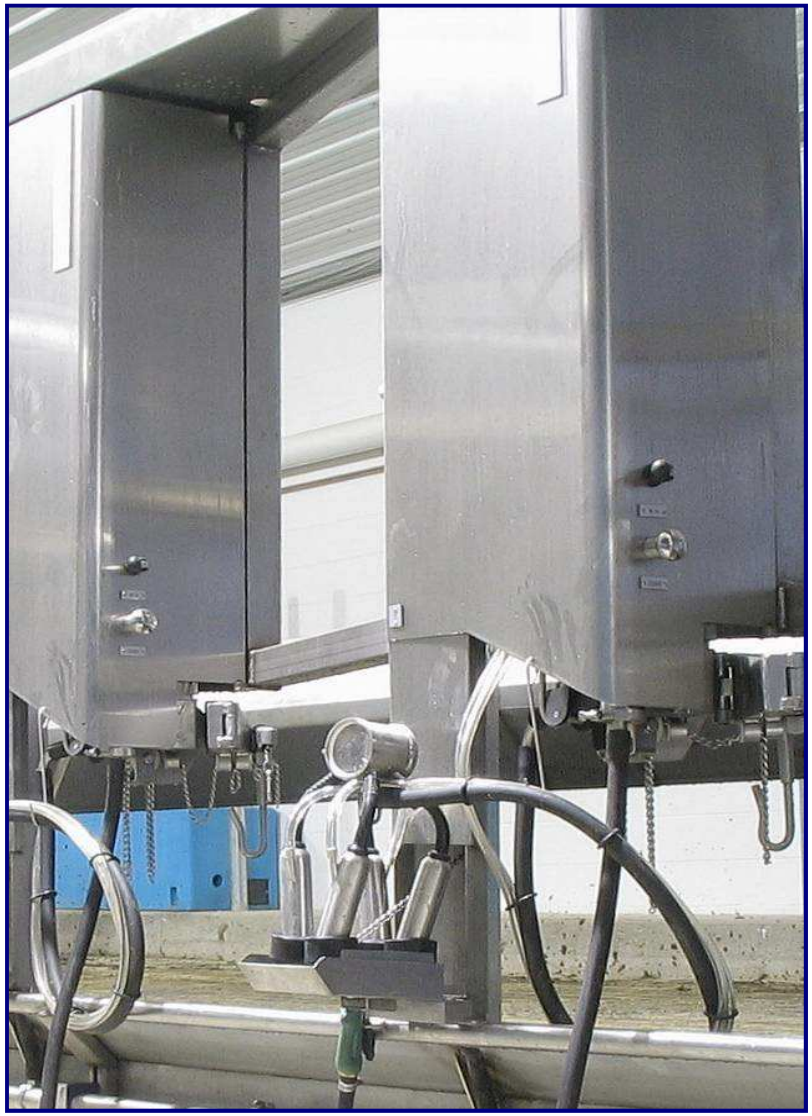
20 *Units*

Original Germania Model SB Arm TakeOffs

Remanufactured

With Automatic Pulsation Shut-Off - New!

$ 42,714



Left : **Germania Model SB Arm TakeOffs integrated into ProTime I Stalls.** ***Right:*** **Model SB added onto PT-II Stalls**

		Germania AccuWeigh 65 Milk Measuring Containers		
20	**Units**	**(Entire System Remanufactured)**	**$**	**8,571**
20	**Units**	**ButterFat Samplers**	**$**	**1,857**
2	**Units**	**AccuWeigh Control Boxes**	**$**	**1,286**
4	**Units**	**Germania Three-Way Valves at Receiver**	**$**	**2,000**

AccuWeighs lets you check on your cows with just a glance,
they provide extra vacuum reserve right next to the cow
and are easy to clean.
Dump the milk automatically when the cows leave and
revacuumize as the next group enters
and at about $550/unit are the lowest cost method of checking milk weights at this time

Original Germania Top Outlet Claw-Clusters

Remanufactured

- Air Forks
- 06 Shells
- 60" Milk Hose
- 108" Pulsation Hose
- Short air tubes
- Liners of your choice: ***Brand & Model_____***

20 Units - with **DeLatron** Pulsators **$ 7,000**

Includes all-new Silicone Rubber Goods!

Germania's Top Outlet Claw hangs well balanced on the arm for milking and equally so in the rest position.

Pulsation System - New!

- 3" PVC Pulsation line with hoses, fittings & wiring harness
- 3" PVC FreshAir line with fittings & hoses
- (4) FreshAir Filters

20 **Stalls** - (2) 3" PVC Cross-Overs in front & back **$** **1,857**

(Pulsators included with Claw-Clusters)

2 **Units** **20-Unit Delatron Pulsation Controllers - New!** **$** **3,971**

3rd Controller is Stand-By, prewired with plugs for instant change-over. No tools required.

CIP-Receiver Combination Group - New!

0	Stall Equiv.	This group combines the traditional Receiver Group and the CIP System into a single pre-assembled aggregate - pre-plumbed, pre-wired and palletized	$	-

36" diam. x 30/40" Receiver - which is also the Wash Vat for the CIP Cycle
(Nominal Capacity of 120 gl. - Dbl. 25 estimated to use 90 gl/fill)

- AW-style Moisture Trap with 4" Vac inlet & 4" U-bend

'- (2) 4" x 33" Sock Milk Filters with 2" side outlet and (2) Butterfly Valves
- 5- hp Milk Pump
- Variable Speed Controller for Milk Pump

- (2) LLC Probes for milk and water levels
- 1 1/4" Input Group with hot and cold water valves + (3) chemical inputs

Water supply lines to Omal valves should be at least 1 1/4" diameter. Otherwise takes too long to fill receiver

- 2" Ball check valve with air blow-out for rest milk

'- Heritage PLC **Pipe Line Washer** with (3) High Capacity Peristaltic Chemical

Electrician supplies:
- 220 Volt, _____single or -_____three phase to this Group

Plumber s upplies:
- Hot & Cold water to the input group
- Cold Water to the Plate Cooler

Includes Stand-by 5 hp Milk Pump with pre-wired Twist-Lock Plugs

Plus a Stand-by Variable Speed Controller, prewired as well

Lock-out Switch at Milk Tank

1	Unit	***6,000 lbs/hr Dual Pass Plate Cooler - New!***	$	10,714

Estimating Maximum capacity at 100cows/hr and 50 lbs per cow/milking

HERITAGE CIP-Receiver Combination Groups

Model 1500 CIP / Receiver group installed at Steve Paul's new dairy near Whitewater, WI, July 2010

Traditional Receiver Group, incl.
1 1/2hp Milk Pumps with Dog House
(1) 4" x 33" Milk Filter

1	**Group**	**Moisture Trap, etc.**	**$**	**4,286**

Automatic CIP System - Pressure Wash! with
140 gl Vertical, enclosed Wash Sink
2 hp Pressure Pump
Air Injector installed at the Receiver Group - New!
Heritage PipeLine Washer - New!

1	**Group**	**2" x 2" Divert/3-Way Valve**	**$**	**9,286**

3" Pipeline - Remanufactured

Single loop, double slope Lo-line, with nipples, fittings, all clamps, gaskets and brackets.

20 stalls **$ 1,857**

2" CIP Line

- with nipples, fittings, all clamps, gaskets & brackets.
- Lines will be dead-ended at front of parlor
- includes Sweep Y at Culvert
- Safety Switch at Milk Tank
- Special Adapter at Milk Tank

20 Stalls **$ 1,829**

2" Discharge line - New!

from CIP-Receiver Group to Milk Tank (Bottom Loading) and back to CIP

60	ft	**Rec. Group (Install Discharge Line to loading docks?)**	**$**	**3,429**

Optional New Feature in 2009

Calf Milk Dispenser - Collect Warm Milk at Any Time
(Can also be installed to collect calf milk outside milk house)

Cost included with Discharge Line

(2) 66" Stainless Curb Extensions in Front

11	**ft**	from Exit Gate to Breezeway Wall. Prevents manure from running into the pit; Includes concrete guard. These will be a permanent part of the parlor.	**$**	**673**

(2) 15-ft Light-Duty Curb Extensions

0	**ft**	**(These will become obsolete when you expand to dbl. 16)**	**$**	**-**

(2) 8 ft Temporary Fences

0	**ft**	**to keep cows from wandering around the front of the parlor**	**$**	**-**

Compressed Air System - Remanufactured

		- (1) 15 hp Ingersol-Rand *Srew-Type* Compressor		
0	Group	**- With New! Twin Tower Drier, dries air to minus 10 dgr - Match to 15 hp**	**$**	**-**
1	Group	**Small Air Prep Group and 1/2" Copper Line for air to all stations**	**$**	**714**
1	Group	**7.5 hp Vertical Ingersol Rand T-30 Piston Compressor with Twin Tower Drier - New!**	**$**	**4,286**

***Electrician** provides 220V to this group ___single or ___3 Phase?*

10 hp Atlas Copco Srew Compressor & 80 gl storage tank for dry air

Twin Tower Drier dries air to minus 10 dgr

10 Hp Vacuum Pumps - Remanufactured

1	Unit	Sutor-Built Lobe-style Blower Pump (EZ)	$	5,000
1	Unit	Frequency Controller/Variable Speed Drive - New!	$	6,122
1	Group	*80 ft of 6" PVC Header Lines with 4" lines fittings to Pulsation and Receiver Group plus Pre-Filter, Check Valve, Exhaust Silencer, Test Port, Safety Valve and Drains.*	$	3,061

***Electrician** provides 220 or 430 volt three phase to this Group - Bid separately!*

		Stainless Wall Panels		
0	**ft**	**4 ft x 10 ft x 16 ga sheets, # 4 polish**	**$**	**-**
		Divert Gate Actuators & Controls		
0	**Groups**	**3" x 14" Stainless cylinders w/EV-125 Quick Exhaust Valves, Versa 'Open' & 'Close' Push Buttons**	**$**	**-**
		4 ft x 4 ft stainless Divert Gate		
0	**Units**	**Built from 2 1/2 x 2 1/2 x 11 ga square tubing Divert exiting cows into a catch pen.**	**$**	**-**
		On-Farm Spare Parts Kit - New!		
1	***Group***	**Includes all essential parts for at least (1) year of operation (2) sensors, a retract cylinder, at least (1) of each air valves, an extra LLC, seal kit for the milk pump, PLC Board Power Supply for the PipeLine Washer, several extra Pulsator, etc.**	**$**	**5,714**
1	**Unit**	**Double Compartment Sink - New!**	**$**	**848**
		Misc. Accessories - New!		
1	**Group**	**- SST Filter Sock Holder with (1) box of Filters - SST Handwash Sink - SST Paper Towel Holder - Soap dispenser - SST bracket for wash-down hose in Milk House**	**$**	**807**

100	ft	**(2) 50ft long 1 1/4" Wash-Down Hose- New!** **for Cow Platforms**	$	1,143
25	ft	**(1) 25 ft long 1" Wash-Down Hoses - New!** **for Milkers Pit**	$	250
0	Units	**Air-Powered, all-stainless Hose Reel** **for Wash-Down Hoses**	$	-
400	squ ft	**Pit Mats for 8 ft wide x 50 ft long pit floor** **Color of your choice - Blue, green, red, yellow, etc.**	$	4,034

Stainless Pit Steps - New!

1 Unit **from parlor into Holding Pen; 4 steps, 30" wide, with Hand Rail** **$ 838**

2	Unit	**Stainless Breezeway Fence** **with 3ft 'Side Wing'**	**$**	**3,429**
0	Unit	**Stainless Cap for Breezeway Wall**	**$**	**-**

20	**Stalls**	**1" Kraiburn Rubber Mats (Made in Germany) - New!** **For the Cow Platforms**	**$**	**3,429**

Stainless Modular Platforms for 10 stalls each

The structural bases of the Modules; Height of your concrete cow platform should be 34" - **if you are comfortable with a 38" working height.**

2 Units **To be discussed!** **$ 5,714**

We build our parlor modules on platforms, a frame work made form 2" x 4" stainless tubing and usually 53" wide x 50 ft long for the typical dbl. 12. Normally, we slide the Modules into place on this steel frame work, pushed by a Skid Loader.

Parlors up to dbl. 12 come as two Modules, left and right. Larger Parlors come as (4) Modules

Summary Page

	Sub-Total Materials	**$**	**213,966**
	26% Dairy-Direct Discount **(Applies if you buy the parlor directly from TechForAg and not thru a Local Dealer)**	**$**	**(32,095)**
	Pre-Installation Labor and Supplies provided by TechForAg at it's factory to convert the above materials into a *Ready-To-Milk* Modular Parlor; ***Calculated at only 10% of Cost of Materials***	**$**	**21,397**
2 Trucks	**Freight - 2** trucks for this project at $750/truck	**$**	**1,500**
	On-Site Installation Labor, Supplies & Expenses **Covers several items:**		
	1. Time and Expenses of a Parlor Specialist, who will be on-site for both installation - (2) Technicians for 12 days @ 12 hrs @55	**$**	**15,840**
	2. Local Installer/Dealer for 30 days @ 8 hrs @ $55	**$**	**-**
	3. (1) TechForAg Parlor Specialist for Final Inspection and Start-Up of Milking: 4 days @ 10 hrs @ $55/hr	**$**	**2,200**
	4. Travel Expenses - (3) Trips to Out-of-State location - Flight, Rental, Motel and Misc	**$**	**-**
	5. Cost of Time while travelling - 6 days @ 10 hrs *35/hr	**$**	**-**
	6. Rebate to Customer of $1,000 if certain conditions are met at start-up of milking		
	7. Warranty work & follow-up visits		
	Grand Total **Parlor with Installation and Freight**	**$**	**222,807**
	Per Stall	**$**	**11,140**

Optionally Available

20	Units	Afimilk 'Essential' Milk Meters with Key Boards	$	33,375
20	Units	Afi Individual Stall Antennas	$	13,675
2	Unit	Switch Box for Antennas (Collects wires from up to 16 antennaes and forwards signal to Ideal Controller)	$	4,528
1	Unit	Ideal Controller (48 units)	$	3,205
1	Unit	Communications Card (installed in a dedicated Computer - not included!)	$	2,331
1	Unit	Afi Dairy Software	$	3,210
20	Unit	MAC Solenoid Valves	$	1,450
20	Sets	Misc. System & Support Hardware VSO Valves, Ellbows, 7/8 pipeline inlets, etc.	$	2,875
4	Unit	Transformer	$	3,250
		Sub Total - Materials	$	67,899
		Training by Local Afi Specialist - 2 days @ 6 hrs @ $100/hr	$	1,200
		TechForAg Installation Labor and Materials @ 18%	$	12,222
		On-Site Installation by Local Dealer/Installer @6%	$	-
		Freight		N/C
		Complete Afi System, delivered and installed	$	81,321
		Cost per Stall	$	3,388

New Afi ID Systems coming shortly….

Afikim is working on additional ID Systems, both

1) RFID and
2) A new Activity Tag with much more powerful features

The Afi tag currently sold in the US is obsolete. Around the world it was replaced with the new ID tag about a year ago. DeLaval did not want to bother with it since it makes the Afi System a much stronger competitor to their own AlPro System.

300	**Units**	**ID Tags (US Version), incl. Straps and Wedges - *Not available from TechForAg!***	**$**	**18,000**

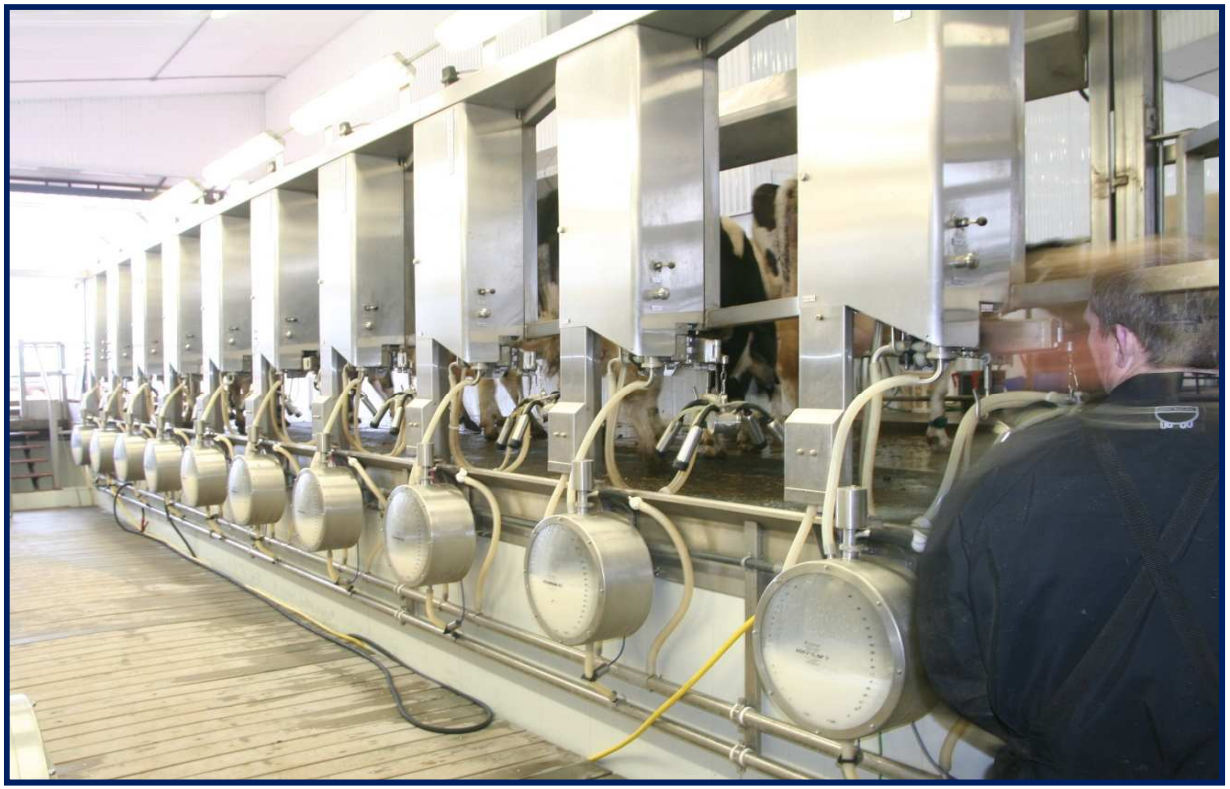
New Version of ID Tag will probably retail for about $120

Cost of RF-ID System unknown at this time

An Alternative to AfiMilk…

….until a few years form now when an Afi System fits into your budget

20	**Units**	**AccuWeigh - Hold-All Milk Meters**	**$**	**10,000**
	Misc.	**Changes to the CIP Receiver Group; Extra Two-Way Valves and drains**	**$**	**2,000**
1		**Turbo Controlled Wash Controller**	**$**	**800**
20		**Butter Fat Samplers**	**$**	**1,625**
		Total, including Freight and Installation @ 12% of Cost of Materials	**$**	**16,184**



AccuWeighs wash extremely well with our Turbo Controlled Pressure Wash System. Requires only a small anmount of additional Water.

Great Vacuum Reserve right at the udder - sort of like the old Surge Buckets

Take a last look at the milk - anything out of whack?

AccuWeighs drain automatically when you let the cows go….

…and revacuumize automatically when the milk is gone.

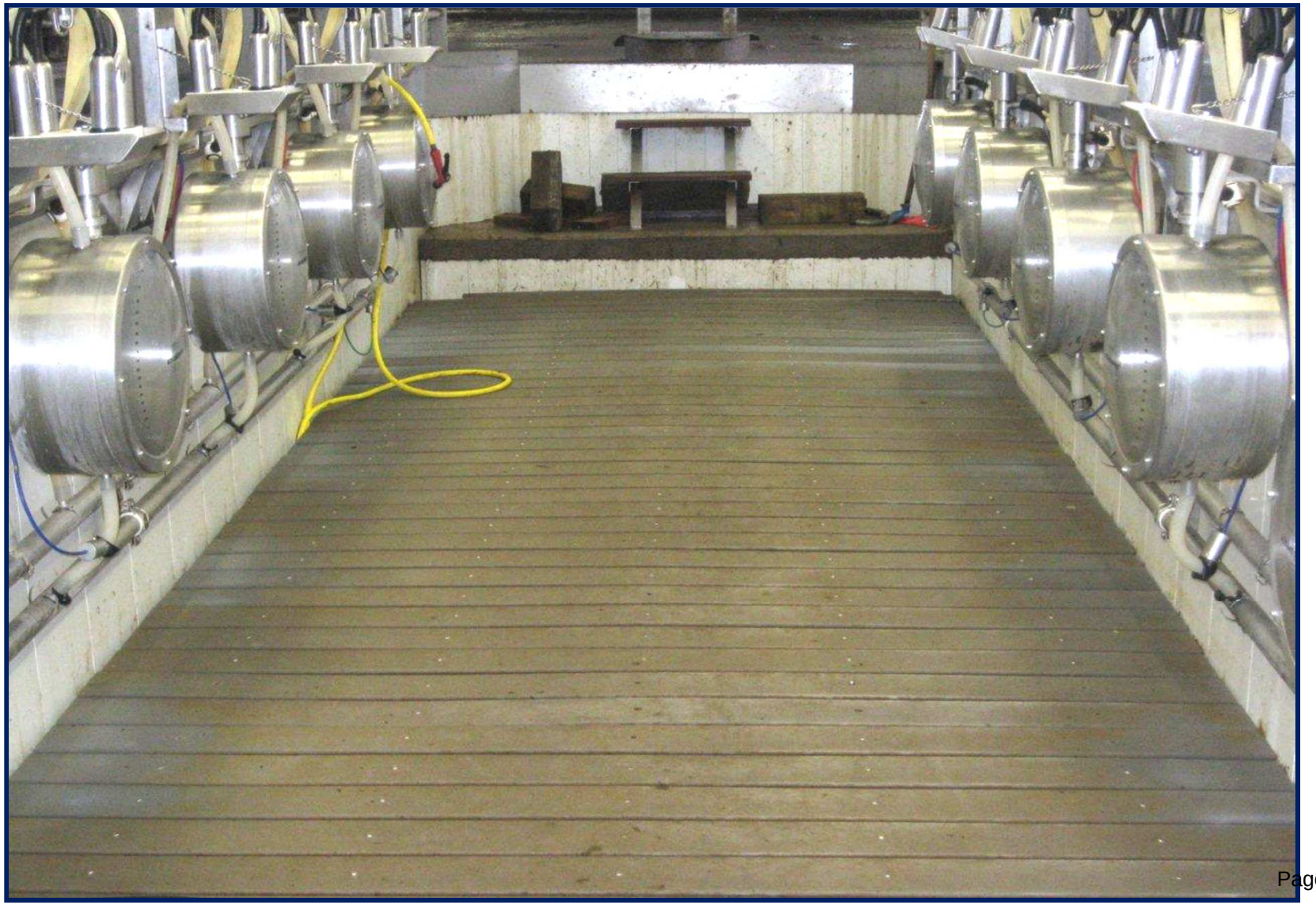
AccuWeighs are no longer available new - DeLaval discontinued production in 1998. But there are plenty of them on the market. At this time they are the lowest cost method of checking on your cows.

Adjustable Pit Floor

…adjusts floor height by 8" up or down

Floors raises and lowers by air pressure
no motors, no switches

360 **Cost - about $65/sqft** **$** **22,500**

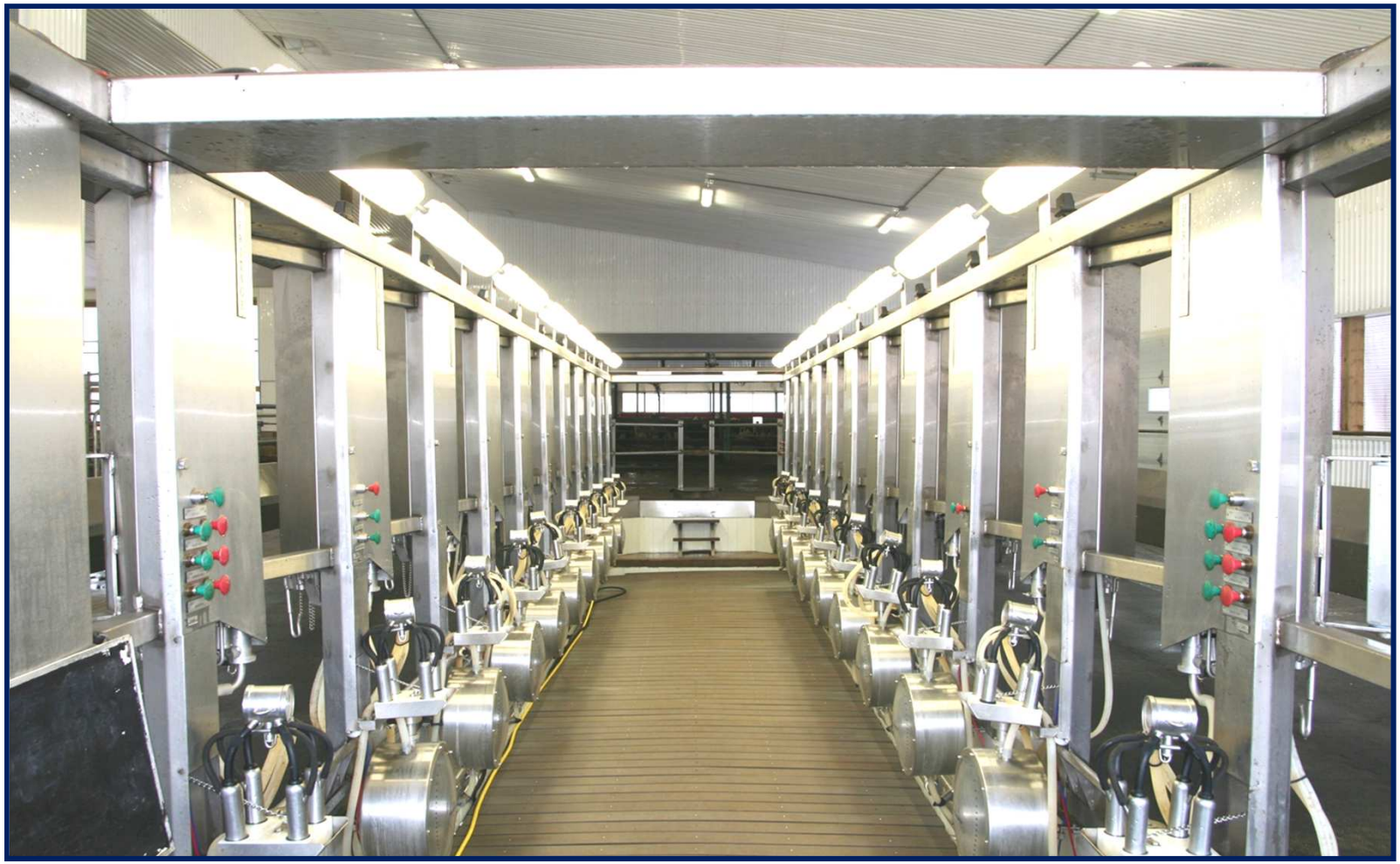


Lights for the Milker Pit

0 Set (Basically a set of (2) stainless brackets to mount Light fixtures) $ -

48" Fluorescent Light Fixtures should be vapor tight and 100% corrosion resistant

We install the brackets on site;
Electrician supplies and installs the fixtures



Terms - I

If production at TFA starts several months in the future

1) 15% down at signing of contract

2) 35% on start of production

3) 45% on delivery of parlor to the dairy

4) 5% on Start-up of milking

5) $1,000 Rebate for prompt payment

Terms - II

If production at TFA starts more or less immdiately

1) 35% at signing of contract, plus

2) 60% on delievery of parlor to the dairy

3) 5% on Start-up of milking

4) $1,000 Rebate for prompt payment

Warranty

18 Months warranty on all materials. Does not apply to the Compressed Air Group and the Vacuum Group, for which we pass on the manufacturer's warranty, both of which will be locally bought