

Best Practices for Blending
with impregnation solution,
Utilizing AgXcel's GX20 Dry
Treater.



A Guide for Retail Operations

This best practices guide is designed to make blending with impregnation solution as easy as possible for your location. Follow these suggestions to successfully impregnate onto dry blends using vertical, volumetric (horizontal), and rotary (drum) blenders.

AgXcel GX20 Dry Treater (impregnating Solution)

Take the GUESS work out of Impregnation and treat dry with accuracy and confidence!

The AgXcel Dry Treating solution allows for the precise application of chemicals for treating dry fertilizer. The GX20 Dry Treater solution allows for a multitude of application environments and the GX20 Software App allows for various configuration to allow for multiple treatment methods. Allows the user to setup treatment styles such as

- Treat by Rate and Time
- Treat in gallons per minute
- Treat with a specified rate

The GX20 app communicates with the Central Control Station via secure Wi-Fi and allows the user to control the application from the dry plant office. Whether your dry plant contains a vertical blender, volumetric (horizontal) blender or Rotary (drum) blender the GX20 can apply the precise application rate and or volume for consistent uniform impregnation to your dry material. The GX20 also utilizes the AgXcel Mag Meter with no moving parts which allows for the precise measurement of liquid to dry application which allows for uniformity in application.



Vertical Blenders



Recommended Practices:

1. If you are currently using an impregnation ring successfully, there is no need to change the application equipment. However, replacement of the impregnation ring with 2-3 flat fan nozzles at top of the blender is generally recommended for more uniform impregnation.
2. Hook up a tote of solution to the induction cone and pump meter or the injection unit connected to a horizontal impregnation line.
3. MOST IMPORTANT: A successful blending process is the following:
 - Add Potash first
 - Start pumping solution
 - Add Phosphate (MAP, DAP or MESZ)
 - Add AMS and/or Urea (if applicable)
4. Blend for 5-7 minutes longer than usual to ensure proper coverage and coating of fertilizer prills.

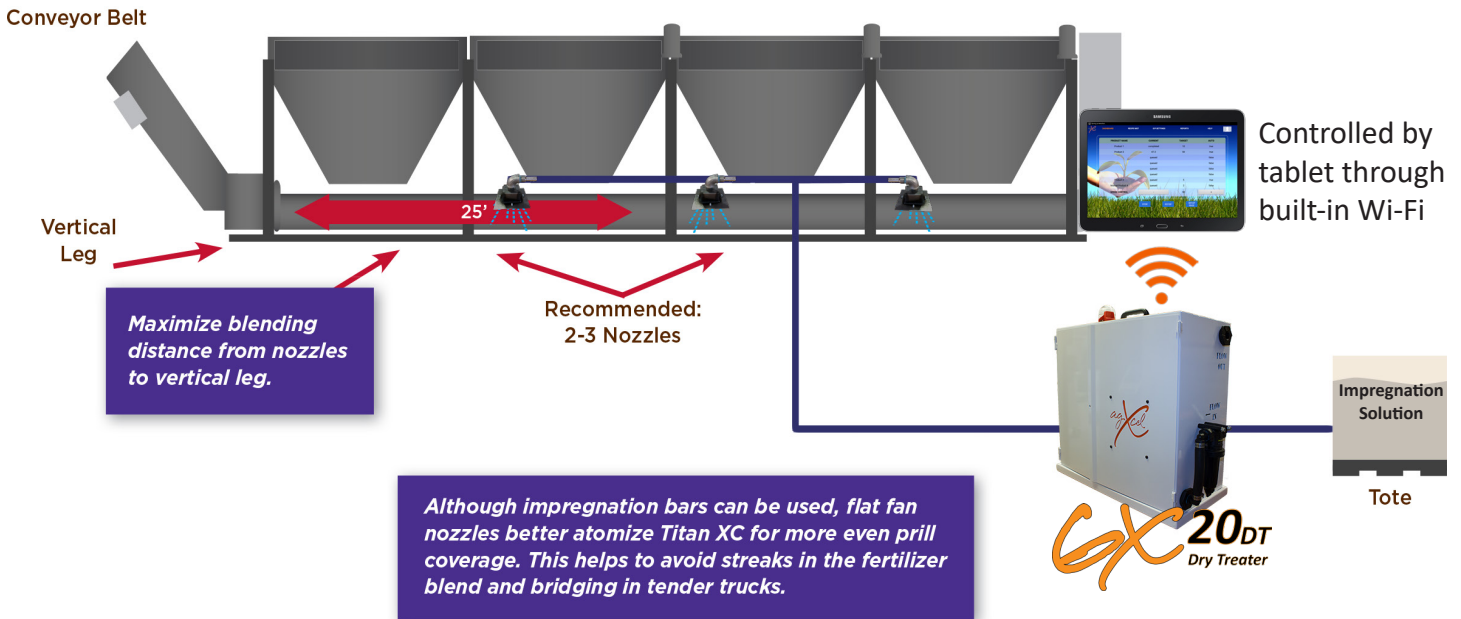
TIP: Allowing for additional blending time will ensure that the impregnated fertilizer is dry when it is augured onto the tender truck.



Kit includes:

- Dual Product Cabinet
- Two 5.3 GPM Pump
- Magnetic Flow Meter
- Pulse Width Modulator (PWM)
- GX20 Module & Harnessing
- GX20 Android tablet with GX20 app pre-installed

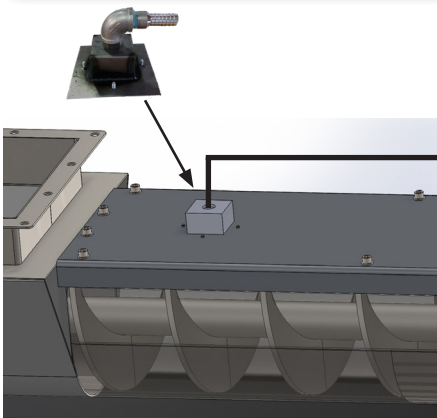
Volumetric (Horizontal) Blenders



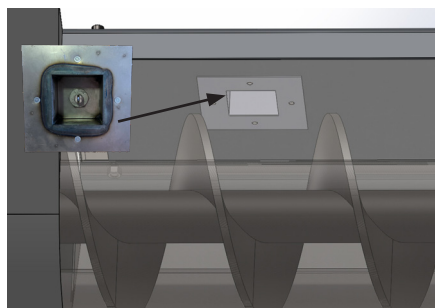
Recommended Practices:

1. Although an impregnation bar can be used, it is recommended to replace the impregnation bar on top of the mixing auger with flat fan nozzles placed 18" to 24" apart for best results. Nozzle location should be as far from the end of the mixing auger as possible to allow more time for blending.
2. Hook up a tote of solution to AgXcel's GX20 Dry Treater injection unit connected to a horizontal impregnation line.
3. The recommended order of the fertilizer bins is:
 - AMS (if applicable)
 - Potash
 - Phosphate (MAP, DAP or MESZ)
 - Urea
4. For operations that currently place impregnation bars outside of the building on top of the cross auger, replace the bar with 2 nozzles for best results.

AgXcel's auger bracket designed for mounting on auger panel. Combined with AgXcel's GX20 Dry Treater, customers can treat ANY dry fertilizer with ease and precision.

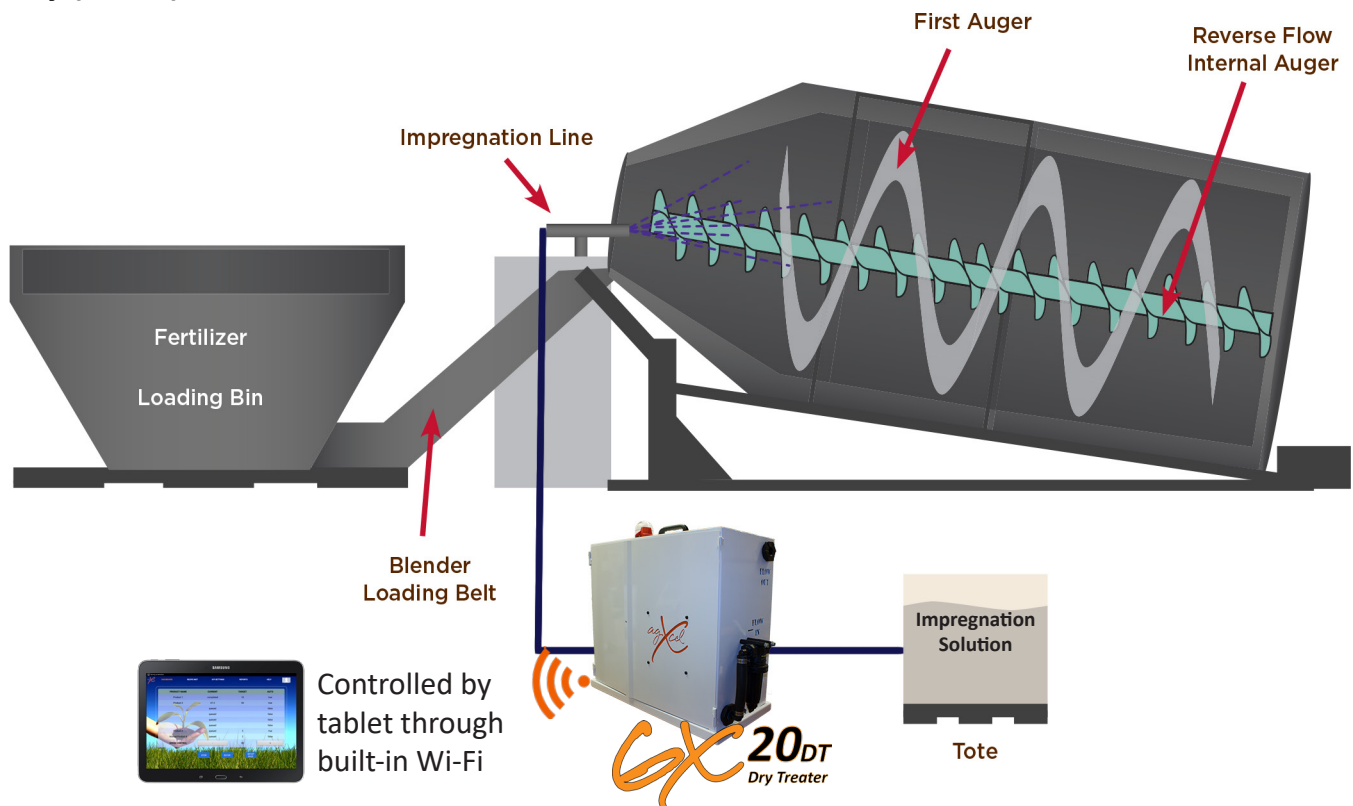


Cross Auger with Impregnation Bar



Replace the impregnation bar with 2 flat fan nozzles for the best results.

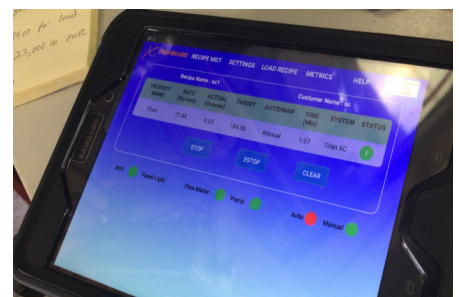
Rotary (Drum) Blenders

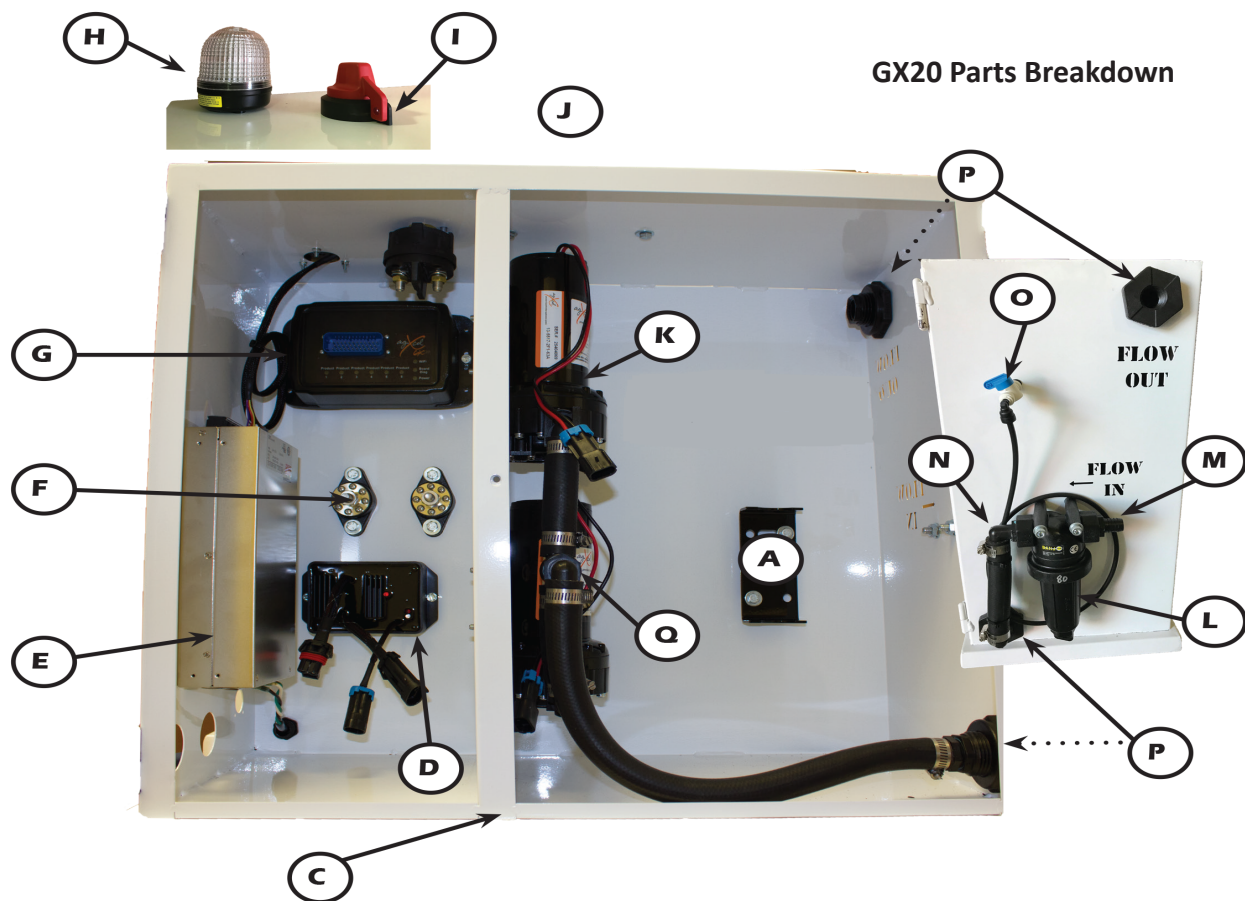


Recommended Practices:

1. Hook up a tote of solution to AgXcel's GX20 Dry Treater injection unit connected to a horizontal impregnation line.
2. At the end of the impregnation line, either place a large flat fan nozzle or reduce down to a ¼" pipe that will shoot the solution straight into the blender. Once the load cell is full of fertilizer, begin the pump. Inject solution into the blender as fertilizer enters from the load cell.
3. Turn on conveyor belt to unload the load cell. Continue to apply solution until the desired number of ounces have been applied to the dry blend.
The recommended rate is 16-32 ounces of solution per ton of dry fertilizer.
4. Allow the load to blend for 3-5 minutes, then add any desired sulphur or micro-nutrient packages.
5. Blend for 2-3 additional minutes, whether or not sulphur or micro-nutrients have been added.
6. Unload the blender.

TIP: For blends that call for products of different weights, an internal reverse flow auger makes sure that all fertilizer sources blend evenly throughout the load. Without this auger, the lighter product will work its way to the top of the rotary blender and will not mix well with P & K.





GX20 Parts Breakdown

GX20 CORE COMPONENTS		
PN#		DESCRIPTION
A	CUSTOM	See catalog for flow meter options. Call for details*
B		See catalog for harness options Call for details.*
INTERIOR COMPONENTS MAY VARY DEPENDING ON IF IT IS A FIRST PRODUCT OR ADD-ON PRODUCT BOX		
C	37746	GX20i_LARGE_ENCLOSURE
D	18022	PWM KIT
E	55416	POWER INVERTER
F	55512	GX20iPOWERPOST (2 REQ'D)
G	55646	GX20i_MODULEKIT
H	55501	LIGHTTOWER_GX20i
I	55495	GX20IMASTERON/OFF
J	55417	HANDLE FOR GX20i (NOT SHOWN)
K	17919	3/4" QC PUMP O RING ELBOW
	20002	5.3 GPM PUMP QC (STANDARD)
	20064	2.0 GPM PUMP QC
PUMP(S) INCLUDED WILL DEPEND ON CALCULATED RATES		

L	51171	80 MESH IN LINE FILTER (STD)
	17677	50 MESH FILTER ONLY
	17678	80 MESH FILTER ONLY
M	18005	3/4" BARB X 3/4" NPT
N	32331	3/4" BARB ELBOW X 3/4" NPT
O	19848	1/4" SHUT OFF VALVE
	260	1/4" QC TO 1/4" MALE NPTF
P	52237	3/4 BULKHEAD (2 REQ'D)
Q	32476	3/4 FEMALE BARB TEE
	32331	3/4" BARB ELBOW X 3/4" NPT
NOT SHOWN	55787	ENCLOSUREBASESTAND_GX20IRR - OPTIONAL BASE STAND FOR GX20

PLUMBING	
19920	1/4" TUBING
17614	3/8 BLK HOSE
54121	3/8 TUBING
37619	1/2 BLK HOSE
55189	1/2 TUBING
308	3/4 BLK HOSE (PRECUT IN 50FT)
19646	#12 CLAMPS
17649	#6 CLAMPS

GX20 Parts Breakdown

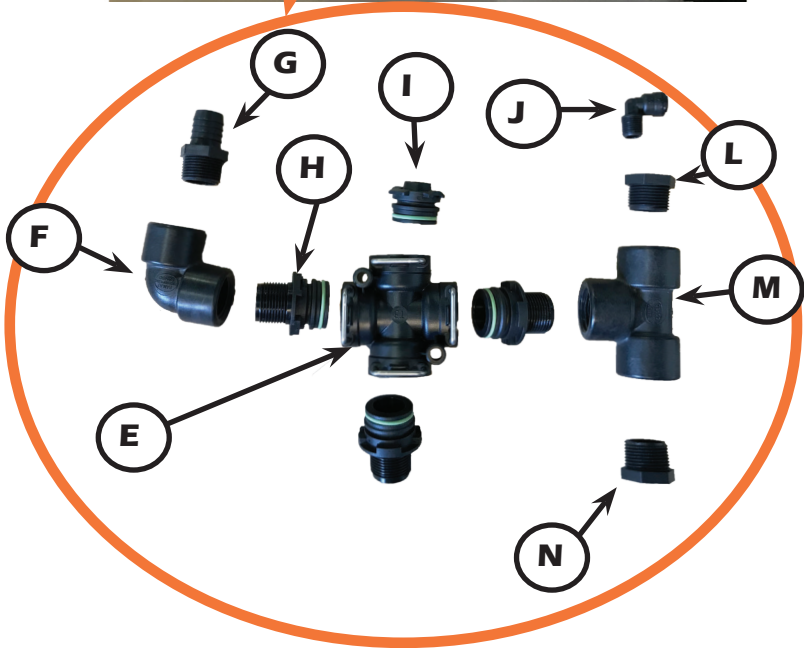
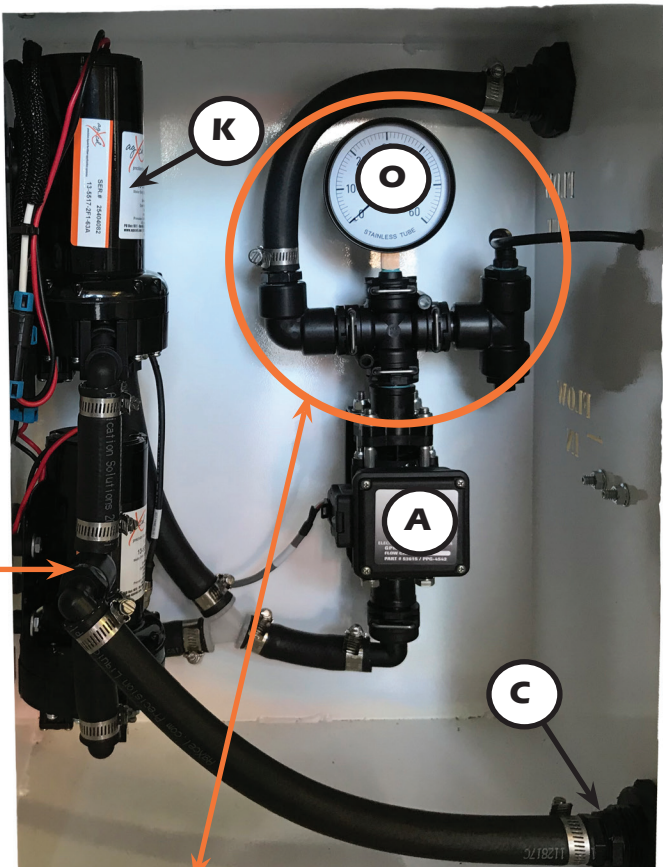
GX20 CORE INTERIOR		
PN#		DESCRIPTION
A	CUSTOM	See catalog for flow meter options. Call for details*
B		See catalog for harness options. Call for details.*

C	52237	3/4 BULKHEAD (2 REQ'D)
D	32476	3/4 FEMALE BARB TEE
	32331	3/4" BARB ELBOW X 3/4" NPT

E	55069	4-WAY FITTING 90° T3F
F	50577	3/4 PIPE ELBOW
G	18005	3/4" BARB X 3/4" NPT
H	55092	HOSETAIL T3M 3/4"M (3 REQ'D)
	54674	VITON T3 O RING
	54677	T3 FORK
I	55070	CAP ADAPTER FOR GAUGE T3M 1/4"
J	260	1/4" QC TO 1/4" MALE NPTF

K	17919	3/4" QC PUMP ORING ELBOW
	20002	5.3 GPM PUMP QC (STANDARD)

PLUMBING	
19920	1/4" TUBING
17614	3/8 BLK HOSE
54121	3/8 TUBING
308	3/4 BLK HOSE (PRECUT IN 50FT)
19646	#12 CLAMPS
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L	32433	3/4" X 1/4" REDUCER
M	52214	3/4" POLY PIPE TEE
N	32364	3/4" HEX PLUG
O	33816	60 PSI GAUGE

Recommended Impregnation Rates for solutions on Dry Fertilizers

Blends with or without Urea

16-32 oz/ton

Notes:

If higher volumes are needed to achieve necessary, add water up to desired volume.

An AgXcel GX20 Dry Treater unit can be used with all three blender types to pump and meter impregnation solution.

Questions about AgXcel's GX20 Dry Treater?

Email info@agxcel.com, visit www.agxcel.com

or call (877) 218-1981



www.agxcel.com

info@agxcel.com



info@agxcel.com
agxcel.com
877-218-1981



Contact Information

Customer: _____ Dealership Name: _____
Customer Contact: _____ Dealership City & St: _____
Phone: _____ Salesperson: _____
Email: _____ Salesperson Email: _____
City & St: _____ Salesperson Phone: _____
AgXcel Representative: _____ AgXcel Representative Phone: _____

Dry Treating

Dry Treating Facility Type:

Vertical Blender ☐ Rotary Drum Blender ☐
Volumetric Blender ☐ Other _____

Is the Dry Plant Indoor or Outdoor: _____

Could Chemical Freeze? ☒ Yes ☐ No

Chemical Hut required? ☒ Yes ☐ No

Size of Chemical Hut required: _____

Are the Chemicals Compatible: _____

What kind of Dry will be Treated:

- ☐ MESA
☐ UREA
☐ POTASSIUM
☐ N
☐ OTHER _____

Type of Chemical using? _____

A. _____

Rate of OZ per ton for treatment? _____

B. _____

Rate of OZ per ton for treatment? _____

C. _____

Rate of OZ per ton for treatment? _____

D. _____

Rate of OZ per ton for treatment? _____

Speed of Dry Auger in TONS per minute _____

Speed of Dry means - how many tons of dry that can flow through the auger in 1 minute. This is required to calculate the total GPM pump.

Is the Auger speed adjustable? _____

IF YES - What are the details? _____

Notes: