



MFWD TRACTORS

» 190 to 220 hp



» 190 to 220 hp

MFWD TRACTORS



» BUILT TO FARM

The Versatile MFWD Tractors are industry leading, full-featured tractors with almost 20 years of field proven performance. Available with 190 or 220 hp, the Versatile MFWD Tractors are powered by the Cummins QSB 6.7L engine that delivers a combination of power, economy and performance. The Cummins QSB engine is matched to a smooth shifting six by four powershift transmission.





- » Introduction **2-3**
- » History of Versatile **4**
- » Features **5**
- » Engine **6-7**
- » Transmission **8**
- » Hydraulics **9**
- » PTO » Hitch **10**
- » Axles **11**
- » Cab Interior **12**
- » Controls **13**
- » Service & Maintenance **14**
- » 3895 Self-Leveling Loader **15**
- » Options **16**
- » Warranty » Parts & Service **17**
- » Versatile Finance **17**
- » Specifications **18-19**

The 190 and 220 are members of the Versatile family of product. Versatile offers MFWD tractors from 190-305 hp as well as four wheel drive articulated tractors from 305-575 hp and a 275 hp self-propelled sprayer.

VERSATILE TRACTORS



A history of success

Versatile was the first company to mass-produce articulated four-wheel drive tractors, starting in 1966 with the D100 and G100 four-wheel drives. Those ground-breaking tractors were primitive by modern standards, with a 6-cylinder diesel or 8-cylinder gas engine producing 100 horsepower. 1966 models sold for less than \$10,000.

In the 1970's, four-wheel drive demand increased significantly with Versatile becoming a leader in four-wheel drive development and production. By the late 1970's the Versatile lineup included tractors ranging from 220 to 330 horsepower. With the 1980's came an expanded line of four-wheel drive tractors that stretched to 470 horsepower in the Versatile 1150.

In 1987, Versatile was acquired by Ford New Holland and by 1989 the four-wheel

drive tractors assembled at the Winnipeg factory were painted in the Ford colors, blue, black and white, and carried the Ford Versatile name. Production of blue four-wheel drive tractors under the New Holland name continued until 2000.

Buhler Industries Inc., a Canadian-owned farm equipment manufacturer, purchased the Winnipeg production facility from New Holland in 2000. Buhler continued to build the Genesis 2WD/FWD tractor and the

2000 Series four-wheel drive and in 2004 launched the High Horsepower Tractor Series. With 435, 485 and 535 horsepower, it was the most powerful four-wheel drive tractor available in North America.

Buhler celebrated 40 Years of Versatile tractor production in 2006 and commemorated 50,000 Versatile-built four-wheel drives in late 2007. At the same time, Combine Factory Rostselmash Ltd., a Russian combine manufacturer, purchased

80% of the common shares of Buhler Industries Inc. At the North American dealer meeting in 2008, the company announced the return of Versatile branded tractors. The reputation of Versatile continues today, known worldwide for reliability, durability and ease of service and maintenance.

Versatile



» The Cummins QSB 6.7L engine has a long-standing history of service in the agriculture industry.

» A triple stack side by side cooling package maximizes the tractor's efficiency.

» The 6 x 4 powershift transmission is easily controlled with six ranges offering four powershifts in each range.

» Entering the cab is easy with two full size doors that swing wide for easy access.



ENGINES » BUILT-IN CUMMINS® RELIABILITY

MODEL	190	220
PTO hp	155 hp	180 hp
Rated engine hp	190 hp	220 hp
Peak engine hp	200 hp	230 hp
Torque rise	51%	33%
Displacement	6.7 L	6.7 L



The Versatile partnership with Cummins dates back to the late 1960's. The QSB 6.7-liter in the Versatile 190-220 joins the QSC 8.3-liter in models 250-305 and the QSM 11-liter and QSX 15-liter that power the Versatile four-wheel drives. »



The power to perform

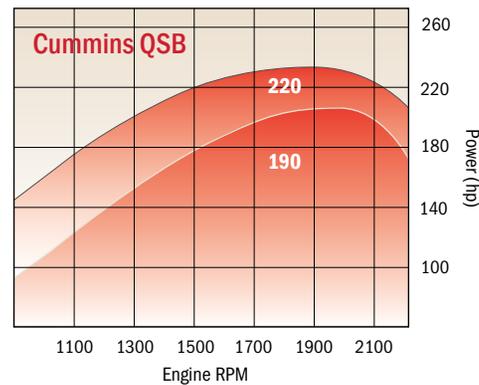
The Versatile MFWD 190 and 220 are powered by the Cummins QSB 6.7-liter engine. Cummins is the exclusive engine supplier across the entire range of Versatile tractors. Engineers from both companies worked together to ensure seamless integration of the engine with the transmission and electronics.

Cummins QSB

The Cummins QSB 6.7-liter is a market leader in horsepower and torque. This turbocharged engine, with electronic controlled high-pressure common-rail injection, offers smooth power delivery and fast engine response with less vibration. In addition this model is excellent for cold starting ability with an integral air inlet heater.

Engine Features

The QSB 6.7-liter combines productivity and power with fuel efficiency. Using Cummins advanced in-cylinder technology, the QSB maintains performance, dependability and durability while operating cleanly and efficiently. Advanced electronics enhance engine performance, with better torque and faster throttle response. The Cummins QSB 6.7-liter has a history of reliability and durability in the agriculture industry, known for its cold start ability and smooth operation, including less engine noise and vibration which means less operator fatigue.



Below: Left-hand shuttle.



TRANSMISSION

6 x 4 Powershift transmission

Geared for peak operation in the field, the 6 x 4 powershift transmission includes the features that farmers want from a tractor in this class.

Upshifting and downshifting is simple with push button powershifts in each range. The left-hand shuttle shift makes changing directions even easier, particularly when the tractor is equipped with a front-end loader. The Versatile 190 and 220 are designed to work the way you want to. Both models are equipped with a 6 x 4 powershift transmission. An innovative design that features large helical cut case hardened gears on roller bearings ensures the assembly is durable, smooth and quiet.



Range	Powershift	kph	mph
1	1	3.02	1.88
	2	3.63	2.26
	3	4.35	2.70
	4	5.22	3.24
2	1	5.23	3.25
	2	6.28	3.90
	3	7.50	4.66
	4	9.02	5.60
3	1	7.64	4.75
	2	9.16	5.69
	3	10.94	6.80
	4	13.14	8.17
4	1	11.23	6.98
	2	13.56	8.43
	3	16.14	10.03
	4	19.26	11.97
5	1	17.48	10.86
	2	21.19	13.17
	3	25.30	15.72
	4	30.27	18.81
6	1	26.08	16.21
	2	31.39	19.51
	3	37.67	23.41
	4	44.61	27.72

6 x 4 Powershift gear ranges

HYDRAULICS

More than just power

Modern implements require more flow from the hydraulic system, constant speed from the power take-off and load-bearing capacity at the drawbar. The Versatile 190 and 220 have been designed to handle these rigorous demands.

The closed center load sensing hydraulic system provides ample capacity for implements that demand high hydraulic flow by providing pressure and flow on demand. When no hydraulic power is required, the system goes into low-pressure standby to conserve energy, providing more power at the drawbar. The Versatile 190 and 220 have a total hydraulic flow of 30 gpm (114 L/min). Four remote valves are standard.



Mechanical hydraulics are standard equipment. Color-coded hydraulic levers are conveniently located on the right-hand console.

The hydraulic remote couplers at the rear of the tractor are color-coded to match the controls inside the cab.



Manual Valve, rotary flow controls.



PTO » HITCH

Match any implement

The 190-220 series' high torque output puts the power where you need it most; at the ground. The 190 and 220 offer the pulling power required for field work, without compromising fuel economy.

PTO

The fully-independent PTO features multi-plate, friction clutches for smooth, shock free implement starting. Both models come standard with 540/1000 dual speed PTO. Changing the speed is done by changing the stub shaft and selecting you speed using a rocker switch on the cab console.

Hitch

The drawbar is equipped with an auto hitch pin that will automatically drop in place when hitching up implements. When backing up the tractor to attach an implement, the implement hitch will contact the release strap and the pin then drops automatically into place, without the operator having to leave the cab, or without the need of a second operator. The heavy-duty, swinging drawbar with hammerstrap may be fixed in any of three lateral positions or allowed to swing the full width of the hanger.



« The 3-point hitch handles massive implements and has a lift capacity of 13,000 lb (5897 kg).

Change the PTO speed using » the 540/1000 rocker switch after changing stub shafts.



» The 3-point hitch handles massive implements and has a lift capacity of 13,000 lb (5897 kg).

» A unique flex coupler driveline connects the engine and transmission for increased efficiency and reduced stress on the engine and transmission.



» Available in 4WD and 2WD configurations.

AXLE

A double reduction planetary drive delivers more torque to the ground and improves the overall efficiency of the tractor. »



Integrated Transaxle

The 190 & 220 have an integrated transaxle to increase the efficiency and operation of the transmission and PTO. A double reduction planetary drive delivers more torque to the ground and improves the overall efficiency of the tractor.

Versatile 190 and 220 tractors are available with either 2WD or front wheel assist tractors. The heavy-duty cast iron rear axle housing with a massive crown and pinion gear set, drive a heavy-duty inboard planetary axle. This gives efficient speed reduction from the transmission to the ground. Utilizing this technology, the Versatile 190 & 220 pulls above its class, by taking advantage of the power delivered to the ground.

The Versatile 190 & 220 feature a proven front axle with Hydraulic Diff Lock. The axle is designed from the 250-305 row crop axle and features the same rugged durability and simple to maintain design.

The 190 & 220 are also available with a 2WD configuration.



CONTROLS

Easy-to-reach controls

The Versatile MFWD Tractors combine operator comfort and function. The information center, located on the center console, features large digital gauges. The most important information is prominently displayed and easy to understand with just a glance.

Coolant temperature, oil pressure, fuel level and battery meter are all indicated on bar-graph gauges. The console is designed to minimize glare, while being well-lit for night time operation.



« To closely monitor the performance of the tractor and implement, the tractor performance monitor is located in the lower-right corner of the information center and provides information on actual ground speed and slip percentage with optional radar.

The side console is uncluttered and easy to use.



- » Spacious and ergonomic cab maximizes operator efficiency and comfort.
- » Easy to use, intuitive controls.



» Quiet, comfortable cab.

An air-ride seat is standard equipment providing » maximum comfort during long hours of work even on rough terrain.

CAB



Comfort and convenience

Farmers will recognize the cab, which is still one of the best in class. Ergonomically designed, the console is uncluttered and easy to use. The dash is straightforward, making it easy to check vital information at a glance. Dual access doors, a comfortable air-ride seat, and tilt and telescoping steering complete the interior package.

Two doors access the clean, quiet and ergonomically correct cab interior. The cab is designed for excellent visibility to all interior and exterior tractor functions.

An efficient climate control system keeps the operator environment clean and dust free. A full length, vertically-mounted grab bar and inside door grab bar, provide extra convenience and safety when entering or exiting the cab. The door-mounted grab bars also make it easy to open or close the door from the seat.

A tilt / telescopic steering control is standard equipment on all Versatile tractors. A gas cylinder gently raises the steering column to the uppermost position when the lock is released, leaving a wide space between the steering column and seat for easy entry and exit.



Quiet, comfortable cab to maximize operator comfort.

Manually controlled heating and cooling is standard equipment.



CAB FEATURES	Standard	Option
Cab comfort		
Air-ride suspension swivel seat with full control	•	-
Training seat	-	•
Manual climate control	•	-
Radio ready with speakers and antenna	•	-
Radio AM / FM / CD / Satellite-ready* stereo with 4 speakers	-	•
Visibility		
Front and rear windshield wiper and washer	•	-
External mirrors	-	•
Vehicle management		
Radar, w/slip control	-	•
Tilt / telescoping steering wheel	•	-
Side console monitor mounting bracket / power bar	-	•
Front Pillar Monitor Mounting Bracket	-	•

*XM™ or Sirius™ Satellite Radio. Monthly subscription fees may apply.



SERVICE & MAINTENANCE

Ease of service

There are never enough hours in the day and every minute counts. That's why all Versatile tractors are designed with easy serviceability in mind. Routine service can extend the life of your tractor, minimize downtime and lower your operating costs.

Versatile factory trained dealer service technicians are up to date with the latest repair technology. Efficient troubleshooting by trained professionals provides timely service support that minimizes your downtime.

Engine filters are easily accessible on the right side of the engine. The filters are vertically mounted spin-on type for quick, clean service.

The large, standard fuel tanks hold a total of 105 U.S. gallons (400 L) of fuel. This large fuel capacity provides long hours of hard working performance between refuelings. Both tanks fill from one location just in front of the cab on the left side of the tractor. The big, single-element air filter is mounted above the engine and is easy to reach. An aspirated precleaner at the rear of the air-cleaner housing extends service intervals of the filter in even the dirtiest conditions.



The air filter is easily accessible from ground level and can be removed without the use of tools. »

« Check engine oil and sight gauges from ground level.

« « The grille opens for access to the radiator and cooling system.



3895 SELF-LEVELING LOADER



Maximize productivity

Add versatility to your Versatile with the addition of a 3895 True Self-Leveling Loader. The 3895 True Self-Leveling Loader is factory installed by trained technicians. The standard steering column mounted shuttle shift is further enhances productivity.

Loader on » loader off

Installing and removing the 3895 Self-Leveling Loader is easy. Simply install the parking stands, which are efficiently stored in the torsion tube, remove the pin on each side of the loader, disconnect the hydraulics, then back the tractor away. No tools are required. All loaders come with a standard quick attach system including color-coded dust caps.

Adding attachments

The Euro quick attach system makes it easy to add and remove loader attachments. To add an attachment, simply move the loader forward, hooking under the bucket loops. Lift the bucket off the ground and slide a locking pin through aligning holes in each side. Many attachments are available, including large capacity buckets, snow buckets, buckets with grapple forks, bale spears and pallet forks.

True Mechanical Self-Leveling

The Self-Leveling system on the Versatile 3895 keeps the bucket in one constant position during the total lift and lower cycle. The system provides full dump at ground and additional roll back as the loader raises. The level indicator rod shows the position of the bucket or attachment relative to the ground.

Attaching the hydraulics is fast and easy with the optional hookup quick attach system.



For added convenience, when operating the front-end loader, a left-hand shuttle shift is standard. »

« A remote electronic control joystick features 4-way operation with an additional circuit for grapple operation.



Standard Equipment

Partial Powershift transmission
Left-hand shuttle shift
Dual speed PTO
Category III 3-point hitch
Four spool hydraulic remote valves
Climate control
Air suspension seat
Tilt / telescoping steering wheel
Halogen headlights and floodlights
Roof and fuel tank worklights
Halogen rear fender flood lights
Halogen rear center and roof flood lights
Front and rear hazard/turn lights
Rear fender turn/brake lights
Category III quick hitch
118" (3000 mm) [105 mm DIA.] bar axle

Optional Equipment

Training seat
Radar speed sensor
External mirrors
HID light package
Front and rear weight packages

Visit your dealer for the full list of available equipment.

OPTIONS

Even more for your machine

Versatile tractors are well-equipped with the standard features most-requested by farmers. Additional options are available to customize the tractor for the requirements of your farm.

High-intensity discharge (HID) lighting

HID lights have proven themselves to be very useful in agriculture operations. There's never enough hours of daylight and HID lighting provides up to ten times more light than conventional headlights. Known for casting a blue hue, an HID light kit is available as a front and rear package.

3-point hitch

A Category III 3-point hitch comes standard on Versatile models 190 and 220. The hitch is capable of lifting 12,500 lb (5680 kg).



⤴
The training seat can be added to the cab as an option.



⤵ All models can be equipped with front and rear weight packages.

All models are available with an optional ⤵
HID light package.



WARRANTY, PARTS & SERVICE

Ownership benefits

Investing in equipment for your farming operation is an important decision and a long-term commitment. The Versatile 3-year / 3000-hour powertrain warranty ensures an excellent ownership experience. Your Versatile dealer has access to our dealer service support system including a wide base of knowledge on current and past Versatile models and an expansive parts inventory.

Warranty

Versatile tractors come with a 3-year / 3000-hour warranty that provides peace of mind. The warranty includes 2-years / 2000-hour comprehensive coverage and major powertrain components such as the rear axle and transmission are covered for an additional 1-year / 1000-hours.

Parts & Service

Versatile dealers have access to an extensive parts supply that is well stocked with the parts for routine scheduled maintenance. Versatile maintains an extensive parts supply for tractors dating back more than 20 years. Your Versatile dealer has factory-trained technicians that can handle everything from routine scheduled maintenance to major service and overhauls.



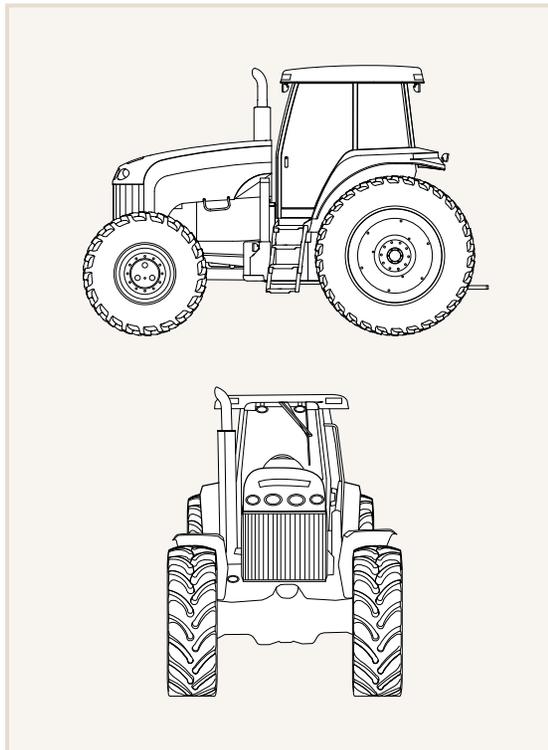
« Replacement parts for older models Versatile tractors may be available from your local dealer.

Now you can purchase or lease your tractor with competitive rates through Versatile Finance. Versatile has partnered with one of the foremost leaders in agricultural financial services to provide attractive interest rates and fast acceptance to get you the equipment you need when you need it. Ask your dealer about the credit options available with Versatile Finance.



SPECIFICATIONS » 190, 220

SPECIFICATIONS	ALL MODELS
Engine	
Engine type	Cummins QSB
Aspiration	Turbocharged & air-to-air aftercooled
Displacement	6.7-liter (409 cu. in.)
Bore and stroke	4.21 x 4.88 in (107 x 124 mm)
Dimensions	
Height to top of cab	124 in (3150 mm)
Top of exhaust	124 in (3150 mm)
Ground clearance	17.6 in (447 mm)
Wheelbase	118 in (3000 mm)
Length	199 in (5065 mm)



MODEL	190	220
Engine performance		
Horsepower	190 hp (142 kW) at 2200 rpm	220 hp (164 kW) at 2200 rpm
Power bulge	3% at 1900 rpm	5% at 2000 rpm
PTO horsepower	155 hp (116 kW)	180 hp (134 kW)
Torque rise	51% at 1400 rpm	33% at 1500 rpm
Peak torque	687 lb-ft (931 N•m)	700 lb-ft (949 N•m)
Fuel system		
Capacity	105 U.S. gal (400 L)	105 U.S. gal (400 L)
Filter	Engine mounted with water separator	Engine mounted with water separator
Transmission		
Partial powershift transmission	6 speed syncro ranges with 4 powershifts per range	6 speed syncro ranges with 4 powershifts per range
Maximum forward speed	25 mph (40 kph)	25 mph (40 kph)
Axles		
Front axle - track setting	72 to 88 in (1829 to 2235 mm)	72 to 88 in (1829 to 2235 mm)
Rear axle length	118 in (3000 mm)	118 in (3000 mm)
Rear axle diameter	4.13 in (105 mm)	4.13 in (105 mm)
Rear axle track - width adjustable Axle 118" (3000 mm)	62 to 130 in (1524 to 3300 mm)	62 to 130 in (1524 to 3300 mm)
Hydraulics		
Hydraulic type	Closed Center Load Sensing System	Closed Center Load Sensing System
HydraFlow rate at 2100 rpm	30 gpm (114 L/min)	30 gpm (114 L/min)
Hydraulic remotes - HydraFlow	4 standard valves w/flow control	4 standard valves w/flow control
Maximum system pressure	2900 psi (200 Bar)	2900 psi (200 Bar)
Electrical system		
Alternator	12 V-160 amp	12 V-160 amp
Batteries	2-12V, 950 CCA each	2-12V, 950 CCA each
Standard lights	Halogen - 2 headlights, 9 worklights, 2 front roof mounted	Halogen - 2 headlights, 9 worklights, 2 front roof mounted
High intensity discharge (HID) lighting	Optional	Optional
Drawbar / 3-point hitch / PTO		
3-point hitch	Category III	Category III
Standard (SAE) lift capacity	13,000 lb (5897 kg)	13,000 lb (5897 kg)
Electronic draft sensing	Optional	Optional
Weights		
Shipping weight	17,750 lb (8070 kg)	17,750 lb (8070 kg)
Capacities		
Fuel tank	105 U.S. gal (400 L)	105 U.S. gal (400 L)
Engine oil	15 qt (14.2 L)	15 qt (14.2 L)
Hydraulic system	83 qt (79 L)	83 qt (79 L)
Coolant system	27.5 qt (26 L)	27.5 qt (26 L)

*All specifications are based on the following tire sizes unless otherwise noted: 14.9R28 (FWD), 18.4R42 (Rear)

SPECIFICATIONS » 3895 LOADER

3895 LOADER SPECIFICATIONS	3895 SLS STANDARD STEER	3895 SL ULTRASTEER
Loader - type	Mechanical true self-leveling system complete with manifold and block relief valve	
Breakout force	9,950 lb-ft at pivot pin	8,811 lb-ft at pivot pin
Maximum lift capacity	6,875 lb (3125 kg)	6,989 lb (3170 kg)
Lift cylinders	3.5 in (89 mm) diameter, 35 in (889 mm) stroke, 2.0 in (51 mm) shaft	
Bucket cylinders	3.0 in (76 mm) diameter, 21 in (533 mm) stroke, 1.75 in (44 mm) shaft	
Maximum lift height	169 in (4.3 m) to pivot pin	187 in (4.75 m) to pivot pin
Maximum dump angle	61°	59°
Maximum rollback angle	35°	45°
Cushion ride kit	Absorbs abrupt forces caused by suddenly dropping a heavy load or when driving across rough ground.	

OPTIONAL ACCESSORIES FOR THE VERSATILE 3895 SL LOADER	
Quick-tach buckets	
100S in (3.78 m), multi-purpose	1.20 cu. yd. (0.92 m ³) capacity, prepunched for grapple tines
100H in (4.02 m), multi-purpose	1.65 cu. yd. (1.26 m ³) capacity, prepunched for grapple tines
96 in (2.44 m), snow	2.25 cu. yd. (1.72 m ³) capacity
85 in (2.16 m), manure	1.20 cu. yd. (0.92 m ³) capacity, complete with 36 in (0.9 m) tines
Bucket tines	
96 in (2.44 m) bucket	Bolt on 21 in (0.53 m), quantity of 10
102 in (2.59 m) bucket	Bolt on 21 in (0.53 m), quantity of 10
Grapples	
85 in (2.16 M), 96 in (2.44 m) and 102 in (2.59 m) bucket	84 in cross tube with 5 adjustable grapple weldments
100H in bucket	Model 3000 - handles 6 ft diameter and larger round bales, 84 in cross tube, with 5 adjustable grapple weldments
A-frame	
Stabilizers - standard	2
Attachments	Accepts bale spears and pallet forks
Bale spears	
49 in (1.24 m)	1, 2 or 3 spears
Pallet fork kit	
Tine dimensions	48 in (1.22 m) long x 1.5 in (38 mm) thick x 4 in (102 mm) wide
Weight capacity	4,400 lb (2000 kg)
Amount of adjustment on shaft	11.25 in (280 mm)

JOYSTICK OPTIONS	MECHANICAL	ELECTRONIC
Location	Cab right hand console	Cab right hand console
Circuits	Two or three circuit. Three circuit valve has separate grapple function with thumb controlled rocker switch.	Three circuit for grapple operation. In console options for tractors equipped with shuttle shift.
Float function	On the loader lift circuit	On the loader lift circuit

All 3895 SL Loaders come with standard color coded hookup quick attach system, parking stand, hydraulic lift lock, bucket level indicator and grille guard.





Your dealer in Africa and the Middle East:

RAC Export Trading D-36041 Fulda / Germany Tel. +49 661 6060 82

www.rac-germany.com info@rac-export.de

Illustrations, photographs, and specifications in this brochure are based on the latest information at the time of publication. Design and specification of equipment is subject to change without notice; please contact RAC Export Trading for product information and availability. Products produced by other manufacturers featured in photography are not endorsed by Buhler Versatile Inc. and are intended for image reference only.