Roll-Over Systems





"Quality remains - long after the price has been forgotten."

Gottlieb Daimler, founder of the >>Daimler-Motoren-Gesellschaft DMG<<



Headquarter of the Otto Christ AG Administration and production on over 35.333 m² roofed area

We at the Otto Christ AG see ourselves as one of the leading, most innovative car wash manufacturers worldwide. Owned by the family Christ for over 130 years our company values our organic growth and the continuous improvement of our products.

Our main focus is and has always been innovation. We perceive changes as chances and are proud to produce a high tech product that is nevertheless durable and of the highest quality. Our machines offer unique features for each segment of the market and we are proud to always strive to develop them further. Our customers, our distributors and our suppliers are an integrated part of our innovation process and enable us to meet the market demands of tomorrow.

We are looking forward to supporting you in your successful wash business and being a part of your success story.

Otto Christ C.E.O.



Parts-production in Pilsen (CZ) with over 29.082 m² roofed production space

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Accessories & Innovations

Top 100 of Germanys innovators

Christ manages to combine inventive talent with set processes for innovations and thereby pushes new ideas from the thought to a market success in short time.





v. li. Otto Christ, Ranga Yogeshwar, Alexander Christ

Ranga Yogeshwar (German TV celebrity) presents the Top 100 Innovator award on the 22. June 2013. It is the second time this price has been given to the Otto Christ AG.

Your local contacts

We at the Otto Christ AG see ourselves as one of the leading, most 30 trusted distributors and 9 subsidiaries. Wherever you are, one innovative car wash manufacturers worldwide. We offer high per- of our representatives will be happy to assist you. formance systems that are at the cutting edge of the industry. One of the reasons of our international success is our network of over



Each country has its unique culture, people and challenges. This are facing unusual local conditions, we will take up the challenge is also true for the wash business. With our global experience we and develop new technologies to assist you in your business. are able to face local challenges and offer solutions. Even if you



Our Services

Advice from professionals

Taylored solutions





Your local partner

- Fast advice on site
- Direct offers on site

Our concept

- · Analyzing the local demand
- Calculating the return of investment
- Recommending the ideal solution

Our portfolio

- Roll-Over Systems
- Washtunnels
- Self-Service Bays
- Trainwash Systems
- Waterrecycling
- Car-Care Products

Certificates

- DIN EN ISO 9001 (Quality Management)
- DIN EN ISO 14001 (Environmental Mgt.)
- OHSAS 18001 (Health And Safety)
- SCC (Safety Certificate Contractor)

Planning and permits

- Direct support of local architects
- · Supply of technical information needed for permits
- Detailed floorplans for local construction

Project Management

- Support in project planning
- Meetings on the construction site
- Detailed information about necessary heavy machinery

Financing

Our local partners are able to advise you about the available financing methods

With our flexible production we will your machine

Analyzing local demand and budget Preparing offer and getting approval for financing if needed Order and technical review of site

Fast installations



First grade service



Installation

- · Installation by technicians certified by Christ
- Installation in accordance with local safety standards
- · Commissioning and testing under supervision
- Instructions on use and maintenance

Chemicals

- Available directly from your local partner
- Christ chemicals are taylored to work perfectly with our machines

Training

Operator training will be done on site by certified technicians

Service

- Local partners available for service
- Direct support distributor by Christ
- Quick reaction times
- Hotline
- Fast supply of Christ spare parts
- Ask about our maintenance contracts
- Remote diagnosis via internet available

Marketing

• Marketing support with images and templates

Facelift

• Facelifts of existing systems are also available

Reporting

- Remote reports via internet
- Export and analize all numbers

deliver and install quickly and reliably!

Production of machine

Installation, commissioning and instruction

Return On Investment

Our local partner will be happy to supply you with a custom made calculation to find out your estimated return on investment. Please note that the calculation below is an example, all numbers are subject to change depending on local conditions.

Output

Otto Christ AG

Market analysis

Potential customers in catchment area	8.544
Estimated washs per year	85.440

Sales potential p.a.	85.440
Sales potential p.m.	7.120
Expected sales	17.500

Cost Analysis

Fixed costs per year

Electricity	990,00 €
Water	0,00 €
Maintaince	0,00 €
Insurance	0,00 €
Waste removal	0,00 €
Advertisements	1.000,00 €
other	0,00 €
p.a.	1.990.00 €

Variable costs*

Electricity	1.910,85 €
Water	2.797,99 €
Sewage	0,00 €
Chemicals	3.167,24 €
Maintaince	5.250,00 €
p.a.	7.876,07 €

^{*}depending on no. of washs

Investment costs

Purchase price	65.000 €
Equity	15.000 €
Total costs n.a.	7 118 88 €

Estate

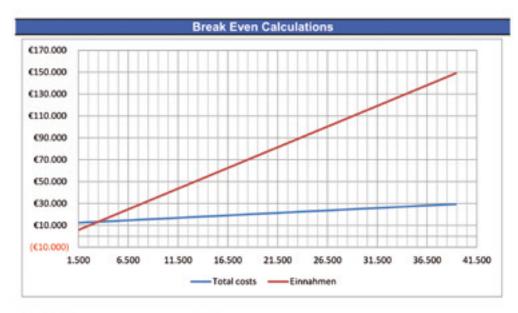
Costs for estate p.a.	2.500,00 €
Other costs p.a.	0,00 €
Initial construction	0,00€

Total fixed costs

per year	9.619 €
per month	802 €
Initial investment in year 1	0€

- Quickly project sales figures and costs
- Can be done directly on site, no waiting
- Many locals costs are already included
- Calculate before you buy and be safe in your investment

Price analysis					
Program	1 1	2	3	4	5
Frequency	50%	15%	15%	15%	5%
Fixed costs / wash	0,27 €	0,08 €	0,08 €	0,08 €	0,03 €
Variable costs	0,04 €	0,62 €	0,90 €	1,01 €	1,01 €
Cost price	0,31 €	0,71 €	0,98 €	1,09 €	1,03 €
Price w. VAT	3,00 €	4,00 €	5,00 €	8,00 €	9,00 €
Price w/o VAT	2,52 €	3,36 €	4,20 €	6,72 €	7,56 €
Return	2,21 €	2,65 €	3,22 €	5,63 €	6,53 €



Break Even 3.500 p.a.

Break Even = all expenses (fixed costs + variable costs) are covered.

With a planned life span of 10 years, a total of 802 customers per month have to be served to cover all expenses and return the investement.

At a total number of 17500 washs per year, your yearly pre-tax profit will be

40.063 €

Payoff after 1,77 years at 1458 washs per month.

Your programs

What we see as "Our Standard"

Included with each Christ machine without additional costs

Custom Made

Each Christ machine is custom made upon your order. This way you will always enjoy the newest technologies and will get a brand new machine right out of the factory.

Individual Colors*

Choose your favorite colors for the brushes and plastic cladding of the machine from our selection of colors.

Basic Chemical System

The right chemicals are the foundation of a great wash. This is why all of our machines come with two free dosing systems for shampoo and drying aid.

OPTIFLEX-Sidebrushes

Optimal contouring of the vehicle's sides with our pneumatically controlled side brushes.

Operator Friendly

Comfortable access to the water system and control panel

Fire-Coated High Quality Steel

Each roll-over frame is first fire-coated with zinc and then powder-coated. This means an extraordinary resistance against corrosion and long machine life, even in the corrosive environment of a wash hall.









Anti Dry-Run System

Should the water supply fail at any time, the machine registers the dropping pressure and will stop immediately to avoid damaging the car.

Closed Front And Rear

All machines come with front and rear cladding in a color of your choice from the Christ color chart.

Anti-Topple System

Safety comes first! This is why all our machines are equipped with an anti-topple system.

Brushes

PE-Brushes are always included, other premium brush materials are available at an additional fee (excl. touchfree machines).

Dryer:

All machines come with a drying system with a drying height of 1700mm.

Duplex Powder-Coating

All our machines are duplex coated for maximal resistance against corrosion. This means a base layer of zinc and a second layer of durable powder-coating.

Economical

Our system need less water, electricity and chemicals due to the innovative design.

Many Options, Many Uses

A short description of the most important options

Active Foam



The perfect start for a perfect wash:

The car is foamed with industrial tensides (soap). These tensides loosen crusted dirt on the vehicle and are especially effective on muddy or dusty vehicles.

The foaming has two reasons: It gives a pleasant visual effect for the client and the chemical is less fluid and can stay longer in contact with the car's surface.

High Pressure Pre-wash



After the Active Foam another cornerstone of a perfect wash: The high pressure pre-wash removes mud, sand and crusted dirt. This helps to avoid damages to the car's finish by sand particles caught in the brushes. Your clients will love the WOW factor of the powerful water streaming over their vehicle and you can save time and costs in cutting back on manual pre-wash.

Wheel Wash and High Pressure Wheel Wash



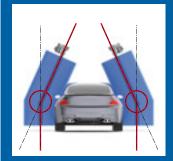
Clean rims and tires have become something that a client expects from any wash. Christ offers different solutions that are suited for your needs. The most popular option is a brush + high pressure combination system which we offer with different pressure and water volumes, but we also offer different types of brush only or high pressure only systems.

Under-Chassis Wash



A thorough under-chassis wash should be included in any premium program. Christ does exclusively offer a rotating 85 bar under-chassis wash that effectively cleans the car from mud, salt or corrosive chemicals. Of course we also do offer the classic fixed or pivoting pipe system.

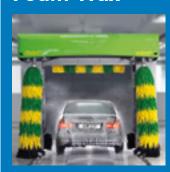
Jointed Side Brush



One of our trademark technologies:

The Christ Jointed Brush has been developed by Christ and has proven its effectiveness over and over in the past decade. Only this jointed brush does make full textile side brushes possible and gives you the premium quality that guarantees satisfied clients.

Foam Wax



A good finish for a good wash:

Similar to the Active Foam the Foam Wax stays longer on the vehicle's surface and creates an attractive gloss finish. In addition to the visual advantages Foam Wax is also very popular due to its conserving properties.

Available for all Christ machines.

Special Wax



For clients that want the perfect result:

A Special Wax system can give a premium wash the ideal gloss finish and is very popular with premium clients. In comparison to Foam Wax the chemical is purer and is also polished into the car with the brushes. A very good conservation and a "Repair Effect" for micro-scratches result in the perfect gloss finish.

Available for all CLASSIC machines and higher.

Drying



The end of every Christ wash:

A thorough drying leaves a satisfied client and lets the car show off a clean and shiny surface. Specially shaped air channels and light barriers allow a very fast and efficient drying process. All Christ roof dryers are contouring dryers, machines of the PREMIUM category and above are able to rotate up to 140° to achieve the ideal angle for perfect drying.

Our Portfolio



All Roll-Over Systems are built according to the standards of the German Association of the Automotive Industry









Industry			- b		
Model (Type)	LEANUS (C16E)	SIRIUS (C16)	CENTUS (C164)	VARIUS (C163)	
Segment	Ва	sic	Classic	Premium	
Typical Operators	Car Dealers/ Repair Shops, Fleet Management, Small Gas Stations	Car Dealers/ Repair Shops, Fleet Management, Small Gas Stations	Gas Stations Car Dealers/ Repair Shops, Fleet Management	Gas Stations Car Dealers/ Repair Shops, Fleet Management	
System Type	Single 3 brush machine with dryer	Single 3 brush machine with dryer	Single 3 brush machine with dryer	Single 3 brush machine with dryer	
Washs per month	up to 800	up to 1200	up to 1200	up to 1200	
Brush material	PE, SENSOFIL+	PE, SENSOFIL+ SENSOMIX	PE, SENSOFIL+, SENSOMIX+, SENSOTEX+	PE, SENSOFIL+, SENSOMIX+, SENSOTEX+	
Passage height (mm)	2250/2650	2250 - 2850	2050 - 3100	2300 - 3150	
Passage width (mm)	2400	2400	2400/ 2700	2400	
Track width (mm)	2500 - 3126	2500 - 3126	2500 - 3126	2500 - 3126	
Pre-Wash	AF	AF	AF, RC, SC	AF, RC, SC, IN	
Wash programs	Standard programs (customizable)	custom made for your	custom made for your	custom made for your	
Conservation	DA, FX	DA, FX, SWW	DA, FX, SWW	DA, FX, SWW, SWA	
Drying height (mm)	1700	1700	1700 / 2000	1700 / 2000	
Special features	Optimized airflow, integrated high pressure pump	Optimized airflow, Airflow adjustment flap	Roof dryer with airflow adjust- ment flap	Roof dryer with self adjusting angle, large section for adver- tisement on front	
Activation	PIN-Code-System, Third-Party solutions	Coins/Tokens, RFID Cards, PIN-Code-System, Third-Party solutions	Coins/Tokens, RFID Cards, PIN-Code-System, Third-Party solutions	Coins/Tokens, RFID Cards, PIN-Code-System, Third-Party solutions	
Gearbox Drive	✓	✓	✓	✓	
Direct Drive					
Jointed Brush			✓	✓	
Roof dryer	contouring	contouring with air adjust- ment flap	contouring with air adjust- ment flap, additonal side dryers	contouring roof dryer with self adjusting angle	
	fixed	fixed	fixed (optional)	fixed	
Plastic covers	Front & Rear	Front & Rear	Front & Rear	Front & Rear	
Alarm for low chemicals				✓	
Pictograms		✓	✓	✓	
LED front ticker					
rear mounted LEDs		✓	✓	✓	
RGB-wheel guiding tubes		✓	✓	✓	
	Model (Type) Segment Typical Operators System Type Washs per month Brush material Passage height (mm) Passage width (mm) Pre-Wash Wash programs Conservation Drying height (mm) Special features Activation Gearbox Drive Direct Drive Jointed Brush Roof dryer Plastic covers Alarm for low chemicals Pictograms LED front ticker rear mounted LEDs	Model (Type) Segment Typical Operators System Type Washs per month Pe, SENSOFIL+ Passage height (mm) Pre-Wash Wash programs Conservation Drying height (mm) Special features PIN-Code-System, Third-Party solutions Gearbox Drive Direct Drive Jointed Brush Roof dryer Field Management, Small Gas Stations Single 3 brush machine with dryer Washs per month Pe, SENSOFIL+ Passage height (mm) 2250/2650 Passage width (mm) 2400 Track width (mm) 2500 - 3126 Pre-Wash AF Standard programs (customizable) Conservation DA, FX Drying height (mm) 1700 Optimized airflow, integrated high pressure pump Activation PIN-Code-System, Third-Party solutions Gearbox Drive Direct Drive Jointed Brush Roof dryer Side dryer Front & Rear Alarm for low chemicals Pictograms LED front ticker rear mounted LEDs	Segment Basic Car Dealers Repair Shops, Fleet Management, Small Gas Stations System Type Single 3 brush machine with dryer Washs per month Up to 800 Up to 1200	Segment Basic Classic Car Declers/ Repoir Shops, Fleet Management, Small Gas Stations Car Declers/ Repoir Shops, Fleet Management, Small Gas Stations Small Gas Stati	Segment Basic Classic Premium

Legend:

AF = Active Foam IN = Insect-Remover
RC = Rim Cleaner DA = Drying Aid

SWW = Special Wax (Water) **SWA** = Special Wax (Air)



 \checkmark



Be creative!

Pick your favorite color of your machine's plastic cladding and brushes. The brush colors can be mixed at will. The steel frame is always duplex powder coated in Telegrey (RAL 7047).

Please note that the colors below might differ from the actual colors on the machine. For a real life sample, please contact your local distributor.

Name	Plastic cladding	PE-Brush	
Ultramarine blue RAL 5002	✓	✓	
Sky blue RAL 5015	✓	✓	
Flame red RAL 3000	✓	✓	
Yellow green RAL 6018	✓	✓	
Traffic green RAL 6024	✓	✓	
Traffic yellow RAL 1023	✓	✓	
Traffic orange RAL 2009	✓	✓	
Pure white RAL 9010	✓	✓	
Telegrey 4 RAL 7047	✓	×	
White aluminum RAL 9006	✓	×	
Grey aluminum RAL 9007	✓	✓	
Jet black RAL 9005	✓	✓	



Sensotex+	Sensofil+	Sensomix+
×	✓	×
✓	✓	×
✓	✓	×
✓	✓	×
×	×	×
×	×	×
×	×	×
✓	✓	×
✓	✓	✓

LEARUS

Low price and reliability side by side











A real "Christ" – but a bargain.

Even with our entry level unit LEANUS Christ does not make any compromises in build quality or parts. All components are manufactured in Europe, the machines are assembled in Christ factories like all other machines. You won't find any low grade components and no cost cutting on the expense of quality. Our LEANUS is a high quality machine, but reduced to the essentials.

Each LEANUS is handcrafted by Christ employees in accordance with our usual quality standards, the low price is reached by high standardization and the use of proven technology. You won't find any cutting edge technology, but this is also a plus for areas where the next service technician is not just around the corner.

The basic model already includes connections for recycled and fresh water and an LED positioning system. The supply pump and high pressure pump can be integrated in the machine, making it possible to forego any plant room and speeding up the installation.

The LEANUS is for clients that need a solid machine for a competitive price.

Technical Specifications	
Model (Type)	LEANUS (C16E)
Ideal Hall Size (L x W) [m]	10 x 5
Passage Heights [mm]	2,250
	2,650
Passage Widths [mm]	2,400
	2,500
Track Widths [mm]	2,700
	2,800
	3,126
Combined Roof-/Side Dryer [kW]	2 x 5.5

Available Technologies:	Active Foam	Tire High Pressure	HP-Prewash	Vitesse Option
	Foam Wax	Protect Shine Express	Vario Touch	Program Display
	Under-Chassis Wash	Opti-Contour Dryer	Opti-Air Dryer	Jointed Brush

BASIC



Memory Control System

During the brush wash the vehicles contour is measured and saved by the machine. The contour following dryer mirrors exactly the way of the roof brush, safely circumventing any obstacles. Should the car have moved after the brush wash, a light barrier triggers an emergency stop and prevents any damages to the car.



Simple and effective

As our entry level machine, the LEANUS is especially easy to install and maintain, even in remote areas. With the integrated supply and high pressure pumps no complicated laying of pipes is necessary and the installation can be finished quickly.



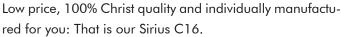
Attractive Design

Being an entry level machine is no excuse for an unpleasant exterior: Our LEANUS comes with an attractive plastic cladding and brushes in blue and orange. The free choice from the Christ color selection is available as an upgrade.

SIRIUS

Efficient and durable!





The fully hot-dip galvanized and powder coated steel frame sets new standards in durability and resilience against chemicals.

As a solid basic machine the Sirius has a low power consumption, many different variants and a unique drying system. Features like shampoo, cross over wash, computer controlled brush pressure and an included user terminal are standards for us and come at no additional fee.

The optional 85 bar side high pressure can clean even muddy vehicles with 6 stainless steel nozzles. The perfect and conserving finish is done by the optional foam wax system in a separate run.

The C16 Sirius is mostly targeted at car dealerships, repair shops and smaller petrol stations with price conscious clients.









Technical Specifications				
Model (Type)	SIRIUS (C16)			
Ideal Hall Size (L x W) [m]	10 x 5			
Passage Heights [mm]	2,250 2,350 2,450 2,550 2,650 2,750 2,850			
Passage Widths [mm]	2,400			
Track Widths [mm]	2,500 2,700 2,800 3,126			
Combined Roof-/Side Dryer [kW]	2 x 5.5			

Available Technologies:	Active Foam	Tire High Pressure	HP-Prewash	Vitesse Option
recimologies.	Foam Wax	Protect Shine Express	Vario Touch	Program Display
	Under-Chassis Wash	Opti-Contour Dryer	Opti-Air Dryer	Jointed Brush

BASIC



Side dryers

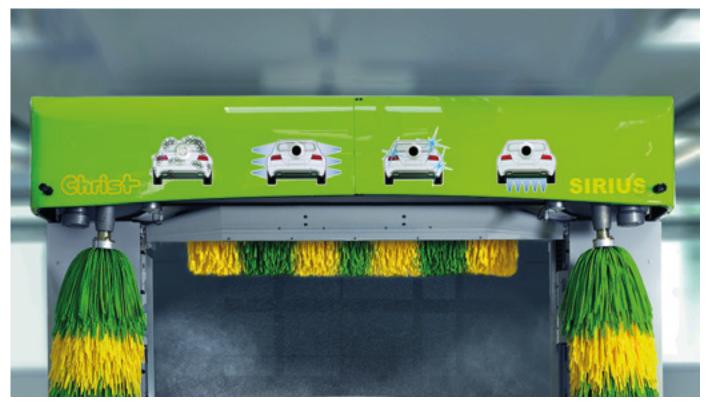
The 1700mm high side dryer is already included in the standard machine. With a unique air flow system the drying fans of the roof dryer are also used for the side drying, saving on electricity and maintenance costs. The machine uses considerably less power than similar machines in the same range.



Roof dryer with 30° air flap

The contouring roof dryer follows the way of the brush and will give you a good drying result with minimal noise and power consumption.

For an improved front and rear drying of vans and transporters we offer the option of an air flap that will redirect the air flow up to 15° to each side.



Program Display

The visually impressive LED spots show the progress of the current wash program and lets your clients follow each step of the wash. If the machine is currently not active, different light effects can be programmed.

CENTUS

Wide and high











Our Centus is a high performance system with various features and options and many different designs. You will get the right machine for your location for a fair price.

This machine was developed for the special requirements of car dealers, repair shops and gas stations. Equipped with a distinct air flow system the Centus convinces with superior drying results of the DIVO roof dryer. Available as options are two additional side dryers. A contouring, 2m wide roof drying nozzle will dry roof and sides of all types of vehicles, the clear positioning system makes it easy to drive in and out of the machine.

Main target group are larger car dealers, repair shops, fleet management services and small petrol stations.

Technical Specifications					
Model (Type)	CENTUS (C164)				
Ideal Hall Size (L x W) [m]	10 x 5				
	2,050				
	2,250				
	2,350				
	2,450				
Passage Heights [mm]	2,550				
	2,650				
	2.750				
	2,850				
	3,100				
Passage Widths [mm]	2,400 / 2,700				
	2,500				
Track Widths [mm]	2,700				
	2,800				
	3,126				
Combined Roof-/Side Dryer [kW]	2 x 4.0				



CLASSIC



LED Systems

The LED positioning system gives the driver exact and clear feedback about the correct position of the vehicle in the machine. In addition to the positioning system we also recommend the LED program pictograms that will give your clients feedback about the current progress of the wash program and the features that have been chosen.





Wheel Wash

Clean tires and rims have become a must for a modern car wash. Christ offers a wide range of brush, HP+brush and touchless wheel washers and different types of chemical application for a perfect result.





Roof dryer with air flow control

Equipped with two powerful drying fans, the roof dryer follows the contour of the vehicle and will give you an excellent drying result. With the optional air flow flap the system is even able to adjust the air flow +/- 30° and can give good results for transporters, station wagons and hatchbacks.

VARIUS

The individual car wash











Our all-rounder Varius is perfectly suited for a profitable wash business and will not disappoint with its high performance systems.

With the highly variable upgrades and accessories you can customize your Varius exactly to your specific needs. The attractive exterior design with its optional pictogram display will give your location an individual touch and is great for advertisement.

The highlight of this machine is the contouring and self-adjusting roof dryer that always uses the ideal drying angle. The system is electronically controlled and always monitored by light barriers to avoid any collisions between dryer and car.

The C163 Varius is targeted towards owners that are selling their washes like petrol stations, car dealers and repair shops.

Technical Specifications	
Model (Type)	VARIUS (C163)
Ideal Hall Size (L x W) [m]	10 x 5
	2,300 2,400
	2,500
Passage Heights [mm]	2,600 2,700
	2,800
	2,900 3,150
Passage Widths [mm]	2,400
	2,500
Track Widths [mm]	2,700
	2,800
	3,126
Roof- / Side-Dryers [kW]	2 x 3.0 / 2 x 4.0

PREMIUM



LED Systems

The LED positioning system gives the driver exact and clear feedback about the correct position of the vehicle in the machine. In addition to the positioning system we also recommend the LED program pictograms that will give your clients feedback about the current progress of the wash program and the features that have been chosen.





Side Dryers and Side High Pressure

An optimized side dryer with 1700mm drying height is already included in the basic model. You can upgrade to a 2000mm side dryer.

The side high pressure will clean all cars effectively from mud, sand and any other abrasive dirt.





Contouring Roof Dryer

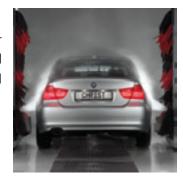
In operation for over 15 years and optimized each year: Out contouring and 140° rotating roof dryer can follow contours of SUVs, sports cars and anything in-between. Two drying fans with 3 kW each will effectively clear all vehicles of remaining water.

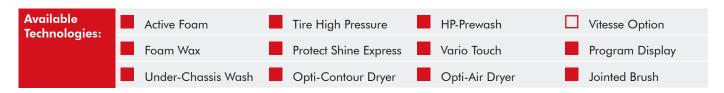




Wheel Wash

Clean tires and rims have become a must for a modern car wash. Christ offers a wide range of brush, HP+brush and touchless wheel washers and different types of chemical application for a perfect result.





GENIUS

The smart option











New and improved technologies in combination with proven and tested systems and a great design: Those things characterize our Genius.

Handmade from high quality materials, built in Germany and rigorously tested before shipment: This is a machine that will stay with you for a long time. The main difference to the Varius is the direction of the brushes, the Genius has the brushes at the front.

Diverse accessories and upgrades are available to adjust the machine to your needs, furthermore each machine will be shipped with exactly the programs you need without any additional cost.

The Genius is targeted towards repair shops and petrol stations with an intermediate number of wash clients. In combination with the Vitesse Option it is even suited for highly frequented locations.

Technical Specifications	
Model (Type)	GENIUS (C160)
Ideal Hall Size (L x W) [m]	10 x 5
	2,300
	2,400
	2,500
Passage Heights [mm]	2,600
	2,700
	2,800
	2,900
	3.150
Passage Widths [mm]	2,400
	2,500
Track Widths [mm]	2,700
	2,800
	3,126
Roof- / Side-Dryers [kW]	2 x 3.0 / 2 x 4.0

PREMIUM



Vitesse Option

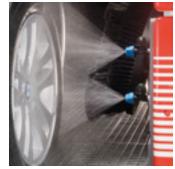
Exclusively available at Christ: This combination of active foam, oscillating high pressure and brush wash can save up to 20% time per wash. With one feature you can have up to 20% more turnover and your clients will enjoy the performance of the powerful 85 bar jets.





Wheel Wash

Clean tires and rims have become a must for a modern car wash. Christ offers a wide range of brush, HP+brush and touchless wheel washers and different types of chemical application for a perfect result.





LED Systems

After the LED positioning system has guided the client safely into the machine, he can follow the progress of his wash on the large LED ticker on top of the machine. 6000 LEDs command attention, even if the machine is currently not active.

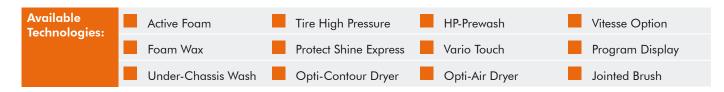




Contouring Roof Dryer

In operation for over 15 years and optimized each year: Out contouring and 140° rotating roof dryer can follow contours of SUVs, sports cars and anything in-between. Two drying fans with 3 kW each will effectively clear all vehicles of remaining water.





AQUATUS

True Touchless - Don't compromise!











The development of the Aquatus had one principle: Don't compromise!

Also a brushless machine should still deliver the same results as any other Christ machine: A great wash. The combined chemical applicator and high pressure bar does make this possible. It keeps an even distance to the car so that the chemicals can reach all parts of the vehicle in the same concentration. The combination of different chemicals will soften up even persistent dirt and the contouring high pressure system will clean it off easily.

Following the Christ philosophy there is no great car wash without a great drying system. Also when it comes to drying, the Aquatus does play in the same league as all other Christ machines. A contouring roof dryer, side dryers and a total drying power of 14 kW will leave no water, only satisfied clients.

This machine targets countries with a high share of touchless machines but also any operator that is looking for a competitive edge.

Technical Specifications				
Model (Type)	AQUATUS (C166)			
Ideal Hall Size (L x W) [m]	10 x 5			
	2,250			
	2,350			
Passage Heights [mm]	2,450			
	2,550			
	2,650			
Passage Widths [mm]	2,400			
	2,500			
Track Widths [mm]	2,700			
	2,800			
	3,126			
Roof- / Side-Dryers [kW]	2 x 3.0 / 2 x 4.0			

PREMIUM



Multi-stage Chemical Application

In several stages different chemicals are applied to the vehicle to soften up any crusted dirt. With our contouring application system the chemicals will be evenly applied to all areas of the car. Two chemicals are included in the basic version, a third is available as an upgrade.





Contouring High Pressure

A unique high pressure system follows the contour of the car and keeps the water pressure on each point of the car even. This means a superior wash result at comparatively low water consumption rates. This feature is included in the basic machine.





Oscillating Side High Pressure

The oscillating side high pressure effectively cleans the sides and sill areas of the vehicle. With 8 powerful jets and 80 L/min is this system similar to the Vitesse High Pressure Option, but is already included in the basic model.





Contouring Roof Dryer

In operation for over 15 years and optimized each year: Out contouring and 140° rotating roof dryer can follow contours of SUVs, sports cars and anything in-between. Two drying fans with 3 kW each will effectively clear all vehicles of remaining water.



Available Technologies:	Active Foam	Tire High Pressure	HP-Prewash	☐ Vitesse Option
recimologics.	Foam Wax	Protect Shine Express	Vario Touch	Program Display
	Under-Chassis Wash	Opti-Contour Dryer	Opti-Air Dryer	☐ Jointed Brush

PRIMUS

Simply the best





All of them!

As the flagship of the Christ product range the Primus has a lot to offer: Besides standard features like cross over wash, computer controlled brush pressure and contouring dryer the Primus is equipped with the newest revolution in car wash system, the Direct Drive. This innovative motor system does not need any gearboxes and is able to change the speed of the brush at the blink of an eye. It is controlled by specially developed frequency converters and opens up a whole dimension of new wash programs.

In addition to the Direct Drive the major strong suit of the Primus is the unique drying concept with contouring roof dryers, tilting side dryers and the AddDry option for high vehicles. These features will give you simply the best drying result that is currently available.

All common brush materials are of course available, so you can equip your machine with PE, Sensofil, Senotex or Sensomix.

The Primus is targeted towards operators with high end clientele or high end petrol stations.









Technical Specifications				
Model (Type)	PRIMUS (C169)			
Ideal Hall Size (L x W) [m]	10 x 5			
	2,250			
	2,450			
Passage Heights [mm]	2,650			
	2,750			
	2,850			
Passage Widths [mm]	2,400			
	2,500			
Track Widths [mm]	2,700			
	2,800			
	3,126			
Roof- / Side-Dryers [kW]	2 x 3.0 / 2 x 4.0			

PREMIUM+



Unique Drying System

The contouring and rotating main dryer, the tilting side dryers and the option van dryer AddDry all work together to achieve the perfect drying result. Since the AddDry upgrade reaches up to 2.5m, even high SUVs and transports will leave the machine spotless and dry.





Protect Shine Xpress

A new innovation made by Christ: With a special pattern of wax nozzles and temporarily higher rotation rate of the side brushes any program with wax is sped up considerably. You will be able to get up to 40% shorter wash times and still get the same, perfect result.





Vitesse Option

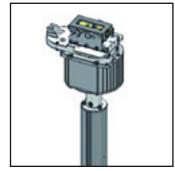
Exclusively available at Christ: This combination of active foam, oscillating high pressure and brush wash can save up to 20% time per wash. With one feature you can have up to 20% more turnover and your clients will enjoy the performance of the powerful 85 bar jets.





Direct Drive

Another Christ-exclusive: The Direct Drive for roof and side brushes disposes of the old gear box based technology and uses frequency converters to control the brush speed. This means that if you switch wash materials you can simply adjust the machine with a software update, no work on the hardware necessary.



Available Technologies:	Active Foam	Tire High Pressure	HP-Prewash	Vitesse Option
recimologics.	Foam Wax	Protect Shine Express	Vario Touch	Program Display
	Under-Chassis Wash	Opti-Contour Dryer	Opti-Air Dryer	Jointed Brush

QUANTUS

Compact and powerful











The Quantus C165 5-brush machine is the work horse of the Christ machines. Developed for locations with high volumes but limited space it can reach a surprisingly high capacity while fitting in a 10m hall.

In combination with the Vitesse High Pressure Option a volume of 16 cars per hour can be reached with a normal wash program. The drying system has been upgraded to keep up with the high speed and has 1.6 kW more power than a standard Christ dryer.

If this is still not fast enough, a special "Speed" option is available that will HP prewash, brush-wash and dry a car in under 2.5 minutes. Your local Christ partner will be happy to discuss the different options for programs with you, they are already included in the sales price of the machine.

The Quantus is targeted towards locations with a high volume and limited space and is the ideal upgrade if your current machine can't keep up with the demand.

Technical Specifications				
Model (Type)	QUANTUS (C165)			
Ideal Hall Size (L x W) [m]	12 x 5			
	2,250			
	2,450			
Passage Heights [mm]	2,650			
	2,750			
	2,850			
Passage Widths [mm]	2,400			
	2,500			
Track Widths [mm]	2,700			
	2,800			
	3,126			
Roof- / Side-Dryers [kW]	2 x 3.8 / 2 x 4.0			

Industrious

PREMIUM+



Vitesse Option

Exclusively available at Christ: This combination of active foam, oscillating high pressure and brush wash can save up to 20% time per wash. With one feature you can have up to 20% more turnover and your clients will enjoy the performance of the powerful 85 bar jets.





Contouring Roof Dryer

In operation for over 15 years and optimized each year: Out contouring and 140° rotating roof dryer can follow contours of SUVs, sports cars and anything in-between. Two drying fans with 3 kW each will effectively clear all vehicles of remaining water.

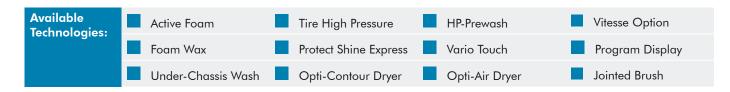




LED Systems

After the LED positioning system has guided the client safely into the machine, he can follow the progress of his wash on the large LED ticker on top of the machine. 6000 LEDs command attention, even if the machine is currently not active.





Double the power 141







The Christ C162 Varius 1+1 is the team-player of the Christ machines. Two specialized portals, one for washing and on for drying are able to speed up the washing process considerably. On one run several functions can be executed at the same time, so e.g. active foam, brush wash, drying aid and drying can all be done in two runs. The high end dryer with 16 kW does only need one run and shortens the overall duration as well.

One of the big advantages of the Varius 1+1 is its flexibility: With two separate portals even unusual programs are possible at high speeds. Your local Christ partner will be happy to advise you on the possibilities.

A visual highlight is the possibility of using a 6000 LED ticker display and LED spots with pictograms at the same time.

The Varius 1+1 is targeted towards operators with high volumes.

Technical Specifications	
Model (Type)	VARIUS 1+1 (C162)
Ideal Hall Size (L x W) [m]	12 x 5
	2,250
	2,450
Passage Heights [mm]	2,650
	2,750
	2,850
Passage Widths [mm]	2,400
	2,500
Track Widths [mm]	2,700
	2,800
	3,126
Roof- / Side-Dryers [kW]	2 x 4.0 / 2 x 4.0

PREMIUM+



Oscillating All-Round High Pressure

The all-round high pressure system comes with 12 point nozzles and 85 bar and is powerful enough to clean even the muddiest car. The back and forth movement of the 0° nozzles achieves a better result than the classical 15°/25° nozzles, and that at the same consumption rate.



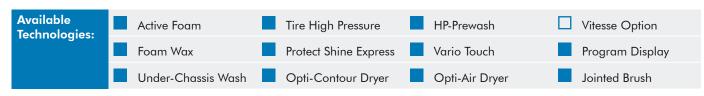


Extra Powerful Rotating Dryer

The rotating dryer adjusts automatically to the ideal angle and together with the high performance side dryers a total of 16 kW drying power is packed into the separate drying portal. Due to this high powered system, even 1.5 runs are enough to leave the car dry and ready to go.







VARIUS TAXX







A wash tunnel in roll-over size: That is the Varius Takt. With its two separately placed portals it can give you up to double the capacity of a single portal unit.

The underlying principle of this machine is the division of labor: While drying portal is still drying a car the washing portal is already starting with the next client. When a car is washed the driver gets a signal to drive ahead into the drying area. This concept means, that the machine is nearly always working on two cars, effectively doubling its capacity. The peak capacity is at 20 cars per hour without any degradation of the wash quality.

In comparison to a full wash tunnel the price and the installation are the main arguments: While a tunnel requires heavy ground works for the conveyer you can simply install the Varius Takt above ground in an existing hall.

A special option are the polishing brushes for the drying unit. Those brushes can be used after a special wax program to give the car a high quality gloss finish which does justify higher wash prices.

The Varius Takt is targeted towards operators with a very high volume and demanding clients.

Technical Specifications	
Model (Type)	VARIUS TAKT (C161)
Ideal Hall Size (L x W) [m]	20 x 5
	2,250
	2,450
Passage Heights [mm]	2,650
	2,750
	2,850
Passage Widths [mm]	2,400
	2,500
Track Widths [mm]	2,700
	2,800
	3,126
Roof- / Side-Dryers [kW]	2 x 3.0 / 2 x 4.0

PREMIUM+



Double the speed

With two separately working portals is the Varius Takt the fastest roll-over system Christ has to offer. This machine won't let you down, even if the weather is good and the clients are lining up. Since washing and drying are in two separate areas it will seem even faster for your clients.





Easy maintenace

The chemicals and the control cabinet are, like with all Christ machines, easily accessible from the front. Due to the separation of drying and washing systems both portals are even easier to understand and maintain and all important modules can be reached directly.

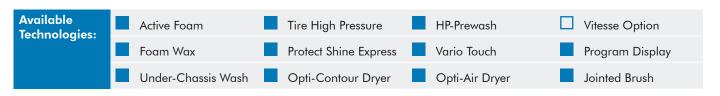




SENSODRY+ polishing brushes

These optional brushes are mounted on the drying unit and will give the car the perfect gloss finish. The perceived quality of the wash is severely improved by this system and it is up to you if you want to offer special polishing programs or just use it with each wash as an advantage over your competition.

The drying material SENSODRY+ is very soft and is especially effective with Christ special wax.



Vitesse High Pressure Concept

Save up to 20 % time







Time is scarce, especially in the wash business. At peak times clients don't want to wait too long for their wash and a high capacity machine can be a true competitive edge.

Our solution for this challenge is the Vitesse Concept!

The Vitesse Concept is a unique combination of a special high pressure pre-wash system, a distinct foam applicator and a newly developed wash program. During the first run foam is evenly applied by fanning nozzles, then the HP pre-wash is done by frontal HP bars. 8 oscillating nozzles per side move 25° and clean the sides and roof of the vehicle with 50 bar high pressure. The brush wash is done in the same run, so all in all functions that usually require three runs are all done in one.

This concept is only available with Christ machines and has been wildly successful since its launch in 2012. At costs of 2-5%* of the machine price the upgrade can give you up to 20% more capacity and will pay for itself within short order.



The high pressure bars each contain four 0° nozzles. Those oscillate 25°, driven by an encapsulated electric motor. The electric motor makes sure that 100% of the high pressure is used for cleaning the car and no energy is wasted creating the oscillation.

^{*}Price can vary depending on the machine and features

Comparison

Example Genius vs. Genius Vitesse							
	No. of runs	Week Time [min]	Time Saved				
	INO. OI FUIIS	Wash Time [min]	[min]	[%]			
Genius	6	07:34	-	-			
Genius Vitesse	4	06:02	1:32	20,26%			

Times for a program with high pressure pre-wash, active foam, brush+wheel wash, special wax and drying.

Your advantages

- Saves 2 runs per wash
- Saves more than 1:30 min per wash
- 20% more capacity
- Up to 2 washs more per hour









Protect-Shine-Xpress

The fast special wax program



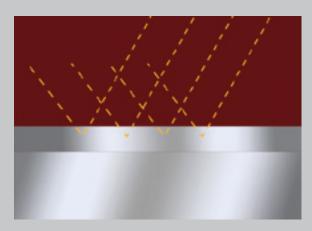




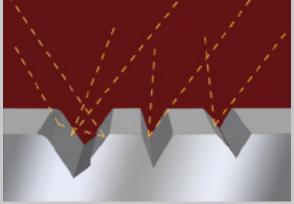
The ideal add-on for the Vitesse Option: Protect Shine Express!

A combination of the new direct drive and the Vitesse Concept make a new and superfast special wax program possible. The special wax is applied by fanning nozzles and the total wash time is under 6:45 min.

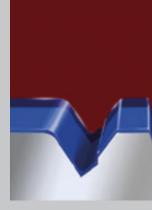
A machine equipped with Protect Shine Express is about 40% faster at premium programs than a similar machine without this option.



A new car has a smooth surface. The light is reflected evenly.



The surface is damaged and scratched with time, the gloss decreases.



Protect-Shine is applied taches itself to the cars su

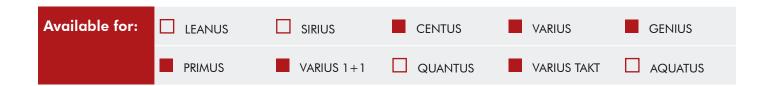
Brilliant Finish

Lasting Protection

40 % More Capacity

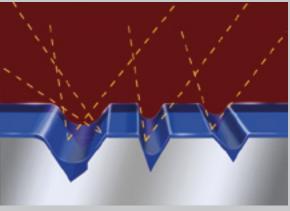
Increase in sales prices

Ideal add-on to the Vitesse Option



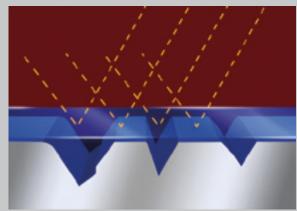


urface.





Small scratches are being filled.

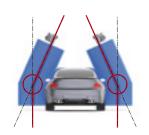


after the wash and at- If applied regularly, a protective layer is created. The finish is smooth and glossy once again.

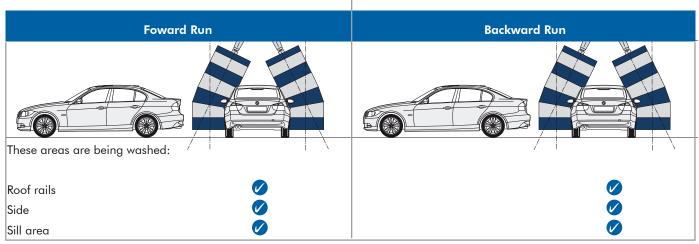
Jointed Brush

The contouring side brush

Proven over the years and only available at Christ: With our jointed brush you will have a perfect side wash. Evenly applied pressure to the car's surface guarantees a smooth and gentle wash. Besides the technical advantages the angled brushes are perceived as "high quality" by your clients.



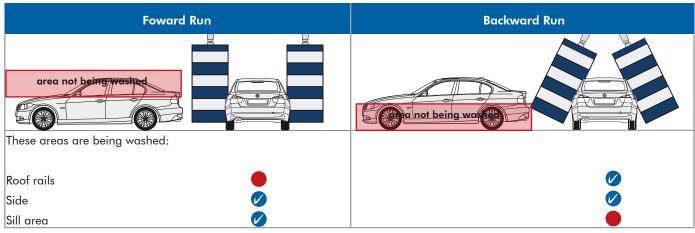
Christ Jointed Brush



High performance

Gentle and even pressure

Standard brush systems



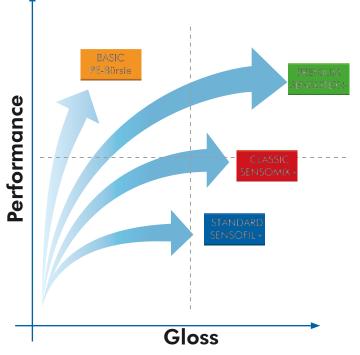
Average performance
High pressure

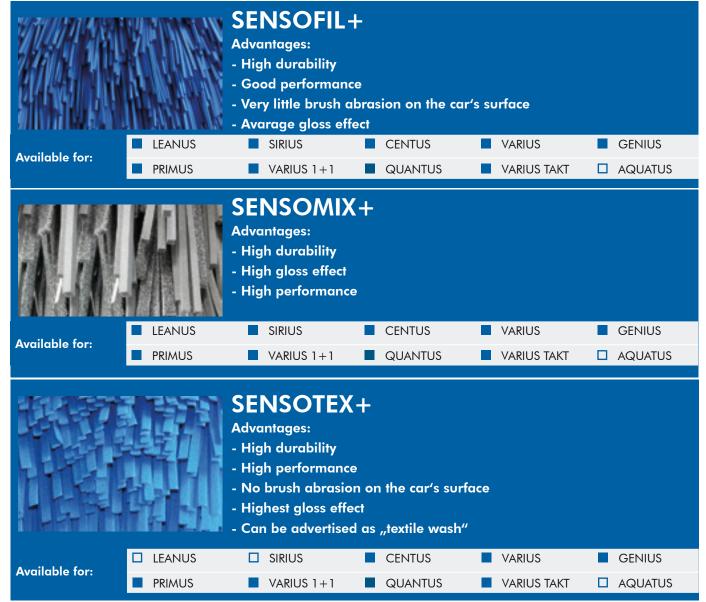
Brush Materials

For each preference the right material

Besides the standard PE brushes there are different choices of brush material. The following list will give you a comprehensive overview over the advantages of the different types of brush materials.

Please note that a high pressure pre-wash is strongly recommended for an optimal result.





Wheel Wash Systems

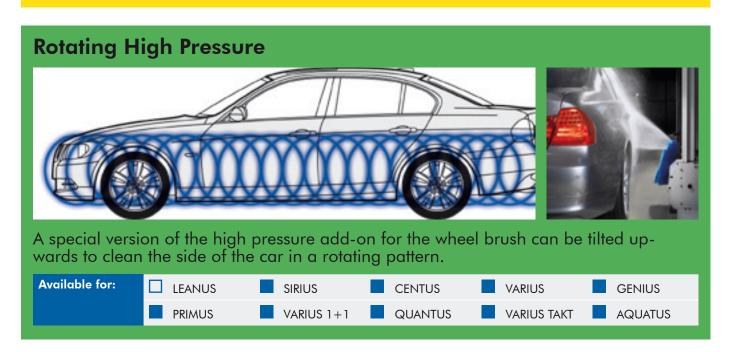
Brush Wash



Our wheel brush with integrated high pressure system sets a new standard for wheel wash systems. Several different types with different numbers of nozzles and water volumes are available. With the automatic direction change even hard to reach areas are cleaned properly.

Available for:

LEANUS
SIRIUS
CENTUS
VARIUS
GENIUS
PRIMUS
VARIUS 1+1
QUANTUS
VARIUS TAKT
AQUATUS



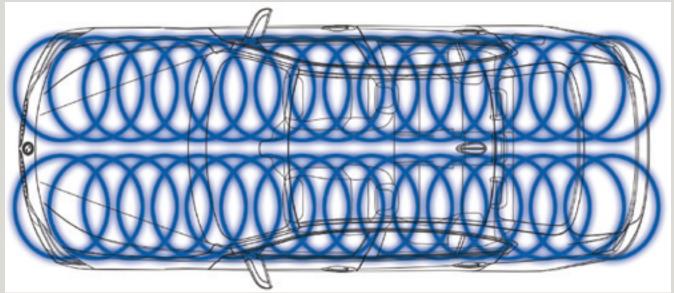


Under Chassis Wash



On a mobile sled two 85 bar HP nozzles are mounted on rotating platforms. This rotation in combination with the moving sled covers the whole under chassis evenly with 85 bar jets and stops automatically at the end of the vehicle. The pumps for the system come in their own plastic casing and can even be used also power the HP system of the roll over.





The rotating high pressure jets evenly cover the whole under body of the car.



- Needs only 23 I/ min.
- Exact measuring of the vehicles length
- Optimal performance with 85 bar high pressure

Available for:	LEANUS	SIRIUS	CENTUS	VARIUS	GENIUS
	PRIMUS	VARIUS 1+1	QUANTUS	VARIUS TAKT	AQUATUS

Vario-L

The modular user terminal

- Made of aluminum
- Simple operation
- Modern look & feel / modular





User Terminal (Wall Mount)

Already included with your roll-over this basic terminal covers all standard functions. It is equipped with a membrane keyboard with illumination, emergency off and start buttons. A C-CAT can be used with this system via the PIN pad.

Options for self service

The basic system can be equipped with a barcode scanner, intercom (only C161+C162), audio-module, coin slot or RFID card reader.

Foot mount

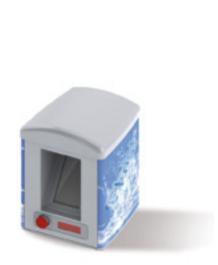
Two different sizes are available as a foot mount. You can choose display heights of 975 mm or 1300 mm for easy access or drive-in systems.

Available for:	LEANUS	SIRIUS	CENTUS	VARIUS	GENIUS
	PRIMUS	VARIUS 1+1	QUANTUS	VARIUS TAKT	AQUATUS

Vario Touch-S

The next generation of user terminals

- Compact aluminum casing
- Attractive design
- Modern touch interface
- **Drive-In ready**



User Terminal (Wall Mount)

This terminal is equipped with a durable touchscreen developed for the use in bright areas. It can be combined with the C-CAT PIN system and gives direct feedback to the client about the current status and duration of the wash.



Options for self service

The basic system can be equipped with a barcode scanner, audio-module, coin slot or RFID card reader. The RFID cards are collected in an electronically locked drawer and can be easily removed.



Foot mount

Two different sizes are available as a foot mount. You can choose display heights of 975 mm or 1300 mm for easy access or drive-in systems. The casing is made of aluminum and is covered by a high quality adhesive foil. Individual designs are possible.

Available for:	LEANUS	SIRIUS	CENTUS	VARIUS	GENIUS
	PRIMUS	VARIUS 1+1	QUANTUS	VARIUS TAKT	AQUATUS

C-APS

Christ Advanced Payment System

Up to 20% more turnover

Easy payments

User-friendly

Self-service

Marketing Campaigns





A simple payment system with additional features

As a specially for the use with Christ machines modified payment system the SimplyStart Touch is manufactured by the internationally known Comestero Group. The system offer high comfort and different options to increase overall turnover. The machine actively tries upselling or cross selling higher programs or additional features like special wax. According to Comestero this feature alone has been seen to increase the turnover by up to 20%.

Different version with different features are available, please contact your local Christ partner to find out which system is suited best for you.

- Large and durable touchscreen
- Visual and audio support for clients
- Can trigger up to 8 wash programs
- Payments in cash, tokens, RFID cards or keys and credit card*
- Gives change
- Can dispense RFID cards, RFID keys and tokens
- Can print coupons with expiration date
- Can read barcodes for promotions, loyalty programs etc.
- Activly tries to upsell
- Can manage promotions
- Sends wash numbers and turnover via e-mail
- Prints or exports (CSV) sales figures

^{*}Credit card payment not available in all countries

C-CAT

The modular addition to the user terminal

Shop-Terminal

The compact and user friendly system is placed in the shop next to the register. It is used to generate tickets with either a PIN or a barcode which in turn is accepted by the user terminal to start the machine. It is also possible to add multiple washes to one ticket, making it easy to run promotions where clients will get a free wash for a specific number of purchased washes.

The system also includes several functions for control-

ling turnover and sales.





Advantages:

- No RFID cards necessary
- No card reader required
- Each wash leaves a paper trail
- Errors are displayed in the shop
- Can be connected to a register system
- Easy use

Available for:	_	_	_	_	_
Available for:	LEANUS	SIRIUS	CENTUS	VARIUS	GENIUS
	PRIMUS	VARIUS 1+1	QUANTUS	VARIUS TAKT	AQUATUS

C-IS

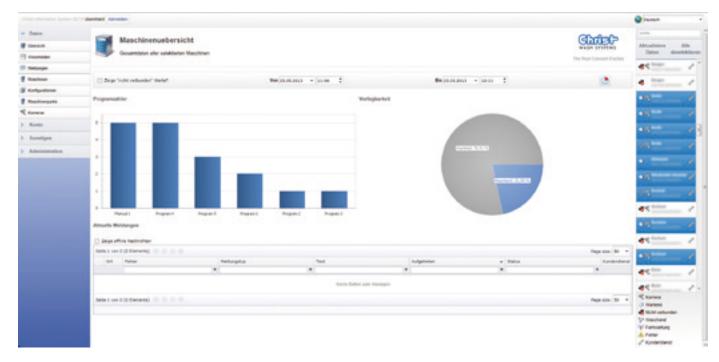
Christ Informations-System

Internet based supervision

With the use of modern network and encryption technologies and a newly developed browser app we are now able to give you full access to your machines from the comfort of your office. In addition our customer service is able to connect directly to your machine upon your request and help you troubleshoot possible malfunctions.

With the browser based system you can use C-IS on any modern PC, tablet or smartphone from anywhere in the world. You can also create different roles within your organization and restrict access according to your preferences. The interface is multilingual, many European languages are already available.





Advantages:

- Fast reaction to malfunctions
- Lower costs in your aftersales service
- Real time wash statistics
- Remote access to the machine
- Optional video surveillance
- Easy market analysis

Available for:	LEANUS	SIRIUS	CENTUS	VARIUS	GENIUS
	PRIMUS	VARIUS 1+1	QUANTUS	VARIUS TAKT	AQUATUS

RGB Wheel Guiding Tubes

A visual highlight



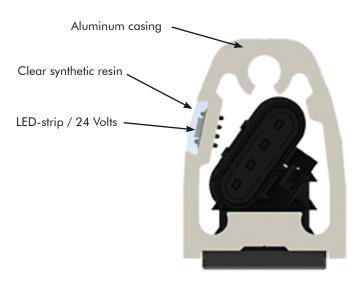
Advantages:

- Moving lights direct the client's attention to the tubes while driving in and out of the wash hall
- Clients drive in and out more safely
- Colors and animations can be adjusted
- Anodized aluminum avoid damages to rims
- Interrupted near the car door, no tripping hazard
- Continuous drive-in version available
- Wide track width of 2050 mm

Wheel guiding tubes with animated RGB LEDs

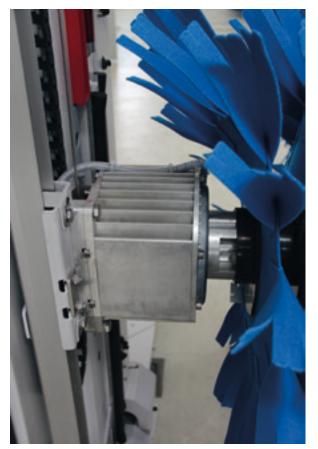
Wheel guiding tubes help the client to drive into the wash hall straight. Illuminated wheel guiding tubes are especially effective and can be used as visual advertisement when the machine is in standby to generate more business.





Direct Drive

Direct Drive for roof and side brushes of the PRIMUS



Direct Drive for roof and side brushes

Only Christ offers the direct drive for roof and side brushes. This revolutionary system does not need a gearbox and reduces the electrical consumption of the motors by up to 10%. The frequency of the rotations are controlled electronically and can be adjusted via software. This means that you can switch the brush material anytime and adjust the machine to the new material, even any materials that might come in the future. Other advantages are the fast and wearfree direction change of the brush rotation and the 250 RPM slingshot program that frees the brush of any water drops before the drying process starts.



Advantages: • Low energy consumption

- Variable brush rotation frequency
 - Front + side wash 100 PRM
 - Slingshot program roof brush 250 RPM
 - Slow anti drip program of the roof brush with 10 RPM
- Increased wash performance
- Very smooth and silent wash
- No dripping from roof brush
- Very fast direction change of the brush rotation
- Different brush materials can be used without changes to the motor

Water Recycling





Filter capacity: up to 3.000 Liter/Hour
Dimensions (L x W x H): 2500x1035x1776mm ¹

Connected load: 3,5kw²



Fontis M: for double roll-over systems

Filter capacity: up to 10.000 Liter/Hour
Dimensions (L x W x H): 2950x1930x2170mm ¹

Connected load: 2kw²

Even the most efficient car wash system still needs a solid water supply. Our FONTIS water recycling systems have been developed for car wash systems and are helping the environment and your wallet by keeping the fresh water consumption low. The used water is recycled with a gravel filter and can be reused for high volume functions like high pressure pre-wash. An automatic flushing system does keep the system from getting clogged and keeps the machine running without the need of extensive maintenance.

BIOCLEAR

The new and biological water recycling made by Christ:

Instead of a mechanical gravel filter this system relies on a combination of bacterial water treatment and a hydrocyclone. The underlying idea of this system does copy the so called "assimilative capacity" of natural bodies of water. This means that naturally occurring bacteria are utilized to clean the water and solid particles are then separated by the hydrocyclone. The system is nearly maintenance free and has little moving parts.

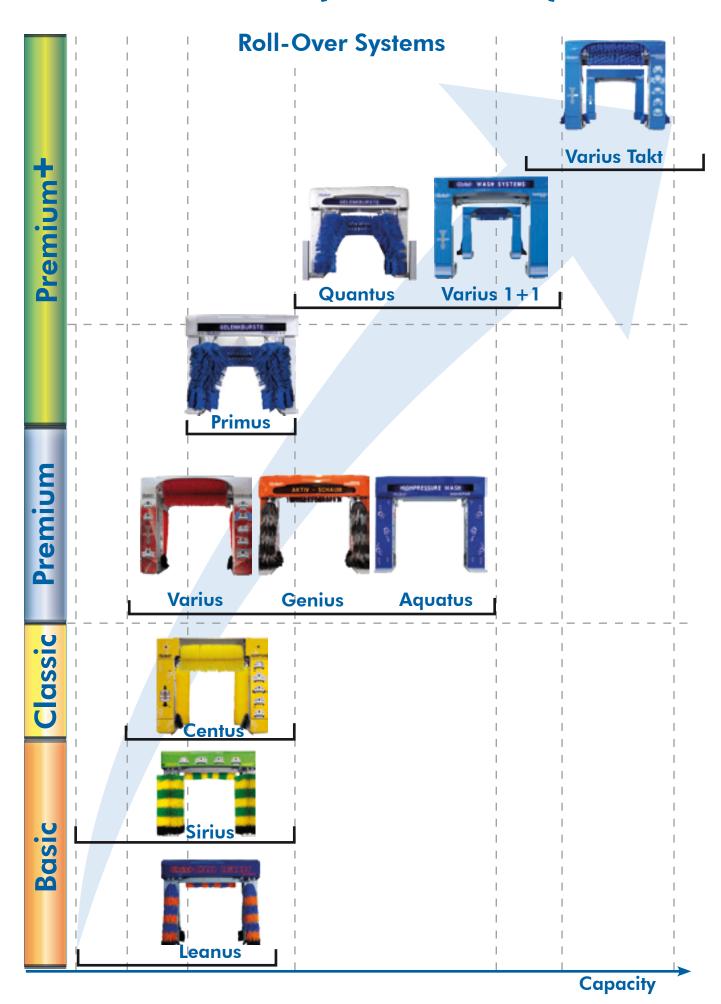


Available for:	LEANUS	SIRIUS	CENTUS	VARIUS	GENIUS
	PRIMUS	VARIUS 1+1	QUANTUS	VARIUS TAKT	AQUATUS

¹ These dimensions are meant for your orientation only, please refer to our technical drawings for exact measurements.

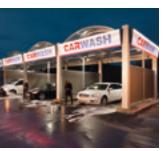
² Only valid for the basic model without supply pumps. You will receive exact and binding figures during the project.

Our Portfolio (Overview)



All from one source

from the Real Car Wash Factory



















Our portfolio:

- Roll-over systems
- Wash tunnels
- Water recycling systems
- Self-service systems
- Truck/Bus wash systems
- Vacuums
- Marketing materials and accessories
- Chemicals
- Payment and surveillance systems

Our services:

- Local sales representatives
- Renturn on investment checks
- Project support
- Training
- Marketing support

One of our certified service technicans is always near you

- Service stations all over the world
- International service hotline
- Fast supply with spare parts





Otto Christ AG Wash Systems

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