



Wheels - Brakes - Landing Gear
For Aircraft



Catalogue 2018
English

Indice A Jan 2018



Quality and Performance since 1985
www.beringer-aero.com

BERINGER - Quality and Performance since 1985

1985

Gilbert Béringer created BERINGER Company helped by his wife Véronique. He has been manufacturing wheels, forks and side cars for motorbikes and then brakes, in the same spirit of quality and performance for 30 years. BERINGER braking products for motorbikes and cars have been accepted by the well-known racing teams for their exceptional reliability, allowing BERINGER to be used by many teams in the World Endurance Championships with many World Champion titles. This was all made possible by a team of exceptional mechanical engineers who have studied and developed new products whose performance/weight ratio is without precedent, for each specific use.

2002

BERINGER Wheels & Brakes was born, when Gilbert Béringer, also a pilot and aircraft builder fond of aviation, decided to apply his patented high performance braking solutions to the aeronautical world.

2007

Rémi Béringer, son of Gilbert and Véronique, joined the Company after he graduated as Mechanical Dipl. Engineer. Also fond of aviation, he designed with Gilbert most of the products dedicated to light-sport aircraft, Formula One Racers, gliders and various fast machines.

2009

BERINGER Company sold motorbike and car activities to focus on the development of wheels & brakes for aircraft. **BERINGER AERO was born.**

2011

BERINGER AERO moved to the airport of Gap-Tallard in the south of France, in a new building dedicated to aviation, with a direct access to the runway. This new plant consists of offices, workshops, and test room with the dyno and test benches designed by Rémi. A hangar welcomes the aircraft receiving the wheel & brake prototypes for the tests.

Claire Béringer, daughter of Gilbert and Véronique, joined the Company after she graduated as Aeronautical & Energy Dipl. Engineer (including 5 months at Oakland University–Detroit, MI) topped with a Master's degree in Commercial and Management Operations.

2012

BERINGER AERO USA Inc. was born in Chicago to answer the US customer needs.

2015

BERINGER celebrated the 30th anniversary of the Company. The ALG landing gear was designed to improve the safety of Taildragger Aircraft.

2016

BERINGER AERO USA moves to Greenville, South Carolina. For personal reasons, Rémi decides to leave the Company.

A flying family

In Béringer family, everybody flies: Gilbert, Véronique and Claire fly with their homebuilt tail dragger and also with ultralight Aircraft and gliders.

An advanced technology

BERINGER makes wheels and braking systems for a wide range of aircraft, from light aircraft up to its now-standard STC for the Pilatus PC-6, and the Cirrus SR20/22 plus complete kits for many popular aircraft, that include everything for a bolt-on conversion. These innovations are covered by nine patents and have allowed BERINGER brakes to take a decisive technological lead. The new ALG undercarriage is covered by a patent.

Quality and Certification

Of course, BERINGER® controls product quality to ensure total reliability to the users of wheels and brakes. This is evidenced by the Alternative Procedures to Design Organisation Agreement given by EASA in 2006 and by the Production Organisation Agreement given by DGAC in 2008.



BERINGER AERO Team



Gilbert Béringier
Owner - R&D



Véronique Béringier
Owner - Marketing



Claire Béringier
Owner - General Manager



Lukas Stutzer
Lead Engineer



Marie Cruveillé
Workshop Manager



Carla Panetta
Operations
BERINGER AERO USA



Frédéric Salle
Quality and Certification
Manager



Brice Barone
Senior Purchaser / Quality



Christine Rochas
Accounting Officer



Christian
Designer



Julie Chaix
Sales Assistant



Viviane Michaud
Sales Assistant



Yann Merle
Engineer



Marie Tartarat
Logistics



Yohann Tourres
Workshop Technician



Dillon Chafin
Workshop Technician

BERINGER AERO's commitment to sustainable development

Respect for the Environment

- At BERINGER, toxic substances and non recyclable materials are eliminated from the fabrication process
- Workshop trash is sorted prior to disposal.
- An environmental awareness campaign is in force and consistently reviewed.

Reduction of Energy Consumption

- Our specially-designed bioclimatic building (BBC) made of local wood only consumes only 10% of the energy required to heat or cool a conventional steel building.
- 98% of the energy used to heat our water is solar-powered
- BERINGER employs vehicles using propane (LPG): they have reduced CO2 emissions and have no particulate emissions.

Eco-Designs for Products

- BERINGER products are designed to have a virtually unlimited service life, because pieces that are worn down can be replaced.
- Components are 99% recyclable.
- 98% of the products are made in France, within a radius of 200 miles; this process reduces transportation and energizes local industrial bases.

Respect for Human Dignity in the Workplace

- From one end of the assembly line to another, from in-house to subcontractors, BERINGER staff members work in optimal conditions following the regulations of OIT (International Work Organization).
- BERINGER does not award contracts based on "lowest-cost," and does not use outsourcing.

Respect for the Ethics of Economics

- BERINGER partners (suppliers, subcontractors, banks, clients) are chosen based on ethical criteria, not only the lowest price
- BERINGER commits to projects based on their moral philosophy :
 - BERINGER wheels are not involved in projects that could intentionally threaten human life.
 - BERINGER has partnerships in eco-friendly projects (e.g., Green challenge, SolarImpulse).

Zero Compromise on Quality

At BERINGER, quality is not only respect for procedures that the EASA certifies, such as the Design Approval Organization and the Production Approval Organization (Part 21G). Quality is a pledge of trust to our clients: our clients entrust us with their lives. To remain worthy of this trust, we offer a life-time warranty (liability insurance) on materials and craftsmanship on all our products.

BERINGER integrates its partners in the projects, from the design stage to commercialization

- AeroProviders : a group of suppliers for Light Aviation manufacturers
- PEGASE : innovation and development group of companies working for Aviation
- Hautes Alpes Développement: Development Agency for local companies In Hautes Alpes department (region) of France.

Since 2010 the MADE IN RESPECT label has been recognizing BERINGER AERO's commitment to sustainable development.



On February 34th, 2012, BERINGER AERO won the Trophée RSE PACA TPE (Social Responsibility of the Companies).

In July 2015, the specific Know-how of BERINGER AERO has been recognized through the Label „Entreprise du Patrimoine Vivant“ EPV.



INDEX

	Page
BERINGER Company - History - Sustainable development	2-3
FAQ	6
HOW TO CHOOSE the correct wheels, tires and brakes ?	8-9
LIST of WHEEL & BRAKE complete SETS (sorted by type of Aircraft)	10-17
Certified wheel&brake kits - description	18-19
WHEEL & BRAKE ASSEMBLIES - wheel/caliper/disc/pad	22-25
WHEELS WITHOUT BRAKE - Nose wheels - Tailwheels	25
TAIL WHEEL groundloop-resistant GLR	21
WHEEL AXLES	26-27
TIRES	28-29
BUSH FLYING - equipment	20-21
Alaskan Landing Gear ALG	20
MASTER BRAKE CYLINDERS	30-35
MASTER BRAKE CYLINDERS FOR CONTROL STICK	38
LEVER MASTER CYLINDERS - hand operated - cable operated	34-35
BRAKE FLUID RESERVOIRS	37
BRAKE FLUID - information	6
PRESSURE REGULATORS - LIMITERS	39
ANTI-SKID - ALIR system - pressure regulators	40
BRAKING SYSTEM - braking schematic (symmetrical and differential)	30 & 39
PARKING BRAKE VALVE	41
HOSE - HOSE FITTINGS - HYDRAULIC FITTINGS	36
TOOLS - bleeder - brake fluids	42

CAN'T FIND WHAT YOU NEED ? LET US HELP

Technical or sales support: Tel **+33 (0) 492 201 619** Fax **+33 (0) 492 526 966**

sales@beringer-aero.com

Company hours : **Mon. - Fri. : 8.30-12.30 am and 01.30-6.00 pm**

Postal address: **BERINGER AERO - Aéroport - 05130 Tallard - France**

WARNING: the mounting and the maintenance of the wheels and brakes must be done by an authorized BERINGER SERVICE CENTER (and by a certified Part 145 workshop for certified aircraft). BERINGER Company is not responsible of troubles due to a wrong mounting, not in accordance with BERINGER instruction (available on our website) and with State of the Art.

CAUTION: BERINGER® and AEROTEC® are registered trademarks.

BERINGER® owns 9 different world patents protecting its unique technology on master cylinders, calipers, discs, brake regulators and aircraft wheels.

INFRINGEMENTS WILL BE PROSECUTED

www.beringer-aero.com

? How can I order BERINGER parts

You can order through the BERINGER network as listed from the website.

Call us or send an e-mail at contact@beringer-aero.com at any time and we will return some ideas.

? I have a technical question. Who can help?

Our Service Centers are able to answer many technical questions, but for a precise technical or engineering question, please contact BERINGER directly.

? Why are most BERINGER wheels made for tubeless tires?

Tubeless has many advantages compared to tube type:

- safer (less risk of puncture)
- weight saving (a tube weights around 1 to 2 lbs)
- cost effective (no tube means no tube to buy)

These are the same reasons why nowadays you find tubeless wheels on cars, motorcycles, and all commercial airplanes. Tubeless designs have specific features to be airtight (most designs use o-rings) and precise machining to ensure proper contact between tire and wheel.

? How can I choose the correct wheels, tires and brakes?

1. First, select your tires according to your use: What kinds of runways: grass, concrete, rough?
 2. Match the wheel to the tires. (See our tire-wheel application chart in the catalog.)
- The brakes you need will depend mostly on the weight of the aircraft and the landing speed, though tire size can come into play at the extremes of the size ranges: to get close, use the formula to calculate the Kinetic energy needed (see the catalogue page 9). Many popular setups are already listed p.10-17.

? How do I know the type of brake fluid to fill my brake system?

The type of brake fluid to use is most of the time written directly on the brake caliper and on m. cyls. DOT4 usually has yellow to amber color and MINERAL ("Mil spec" or "aviation") brake fluid is red. If you have any doubt please contact your BERINGER SERVICE CENTER.

? I filled my brake system with the wrong brake fluid: what can I do?

The wrong brake fluid will damage the seals after only few minutes of contact. This is potentially dangerous because after a short period your brakes can lock, leak or stop working properly. If you have put the wrong fluid into the system, you will have to change all the seals of the entire system. (Note: this is true, regardless which brand of brake parts you use.) If you have a BERINGER system, ask BERINGER for repair kits or send the parts back to BERINGER service for repair.

? If I switch to BERINGER Wheels & Brakes do I also need to change my M. Cylinders?

If they are compatible with the brake fluid then you still need to check the hydraulic ratio: with our brakes we recommend using M. Cyl.s with a piston bore of 1/2" (9/16" maximum). If the bore of the M. Cyl.s is too big, they cannot produce enough pressure to provide enough braking torque on the wheels. Some master cylinders are so crude (or just so old) that the inherent smoothness and feel of BERINGER calipers can be masked in operation; for this reason, we recommend using only BERINGER master cylinders.

? I want to improve my Wheel & Brake system but BERINGER prices are too high.

BERINGER systems are a little more expensive than ordinary products but thanks to their exceptional reliability and life, the operating cost is much more economical. It is often possible to pay back your investment in 1 or 2 years, with brake components that last, lines that don't leak, pads that have 3-5 times the life of legacy pads, quicker and simpler pad replacements, no tube expenses, no bearing maintenance, and (with ALIR), fewer flat-spotted tires and straighter, shorter stops. And all that time, you are enjoying better, smoother braking. (And BERINGER wheels save weight and look good, too.)

BRAKE FLUID : information

Brake fluid is critical to the function and performance of your brake system. Choosing the right brake fluid will insure trouble free functioning for many years. Conversely, the wrong brake fluid will damage seals and cause failure of your brake system. There are two pre-dominant “families” of brake fluid in use worldwide:



A. The first family is polyethylene-glycol based and is compatible with only EPDM seals.

These fluids have been developed for the hydraulic brakes of motor vehicles and are called DOT3, DOT4, DOT5 or DOT5.1

DOT3 has lower performance and has been replaced by DOT4. DOT4 is the most commonly used fluid in motor vehicles. DOT5 is usually silicone-based, but is not commonly used, and is not miscible (“mixable”) with DOT3 or DOT4. DOT5.1 is not miscible with DOT5 and may also be not miscible with DOT3 or DOT4.

The primary objection to DOT 3 and 4 fluids was that they are hygroscopic (they absorb water). However, in a sealed reservoir, in a corrosion-resistant brake system, DOT4 fluids will remain usable for minimum 10 years. Additionally DOT3 and 4 brake fluids are aggressive with paint. Continent systems and care in handling remove this negative.

In the “DOT” family, we recommend using DOT4 and only DOT4 because the performance is adequate, and all DOT4 brands are miscible with each other.

DOT4 is used on many ultralight aircraft. You can purchase DOT4 almost everywhere around the globe as it is used on all recent cars and most motorcycles.



B. The second family is mineral-oil based and compatible with only* NBR (Nitrile) seals.

The hydraulic fluid MIL-H-5606 has been commonly used in general aviation for many years.

The major deficiencies of MIL-H-5606 are its high flammability and a relatively low boiling point.

In the ”mineral” or “MIL” family we recommend using the MIL-PRF-87257 as a replacement of the MIL-H-5606. These 2 fluids are compatible and miscible with each other. MIL-PRF-87257 is fire resistant and synthetic-hydrocarbon based, it has also a higher boiling point than MIL-H-5606.

FLUID	FLUID Color	SEALS	
		EPDM	NBR (Nitrile)
DOT4	colorless to amber	ok	Not compatible
MIL-H-5606	red	Not compatible	ok
MIL-PRF-87257	red	Not compatible	ok

***NBR (Nitrile) seals → mineral fluid → red color → MIL-PRF-87257 recommended
EPDM seals → DOT4 brake fluid → colorless to amber color → DOT4 only***

Notes:

EPDM seals are very sensitive to petroleum based solvents: few minutes of contact can completely damage the EPDM seals. That is why we recommend cleaning the parts only with a dry cloth or soap and water.

* These fluids may be compatible with other seal materials (contact us for more information)

BERINGER Wheels & Brakes

BERINGER WHEELS and BRAKES for main gear are designed to provide the best stopping power and the reliability you are expecting from a safe braking system. We will help you to choose the dimension and brake torque adapted to your aircraft. We have a large range of assemblies: wheel / brake caliper / brake pad / brake disc.

We also design and manufacture the optimal upstream components: reservoirs, master cylinders, the ALIR anti-skid system, and parking brakes. All these are tied together with top-quality braided stainless steel Teflon lines and proper fittings. Components and complete systems are available.

BERINGER WHEELS: advanced technology

- High strength aluminum alloy CNC machined from solid, anodized for optimal corrosion resistance
- TUBELESS wheel with O-rings and rigid valve
- SEALED BALL BEARINGS for optimal durability: greased for life, no maintenance
- Very low rolling resistance

During the design of a wheel we focus on three criteria: strength, weight, and durability. First, we assess the overall design and apply our experience and some hand calculations. Then we build a 3D model on CAD software and run FEM (finite element analysis) in the optimizing process, where we remove material from one side to add it on another, etc... till the result is satisfying for us with an optimized strength/weight ratio.

Then we make prototypes and start the qualifying process on our own bench machines.

The **BERINGER R&D laboratory** is dedicated to Research, Development and Certification tests.

On the wheel itself we do 3 different tests :

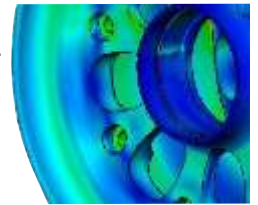
- **Load test:** we apply different loadings on the wheel and tire (radial and side load) to check the strength and load rating of the wheel. Ultimate load tests go up to 6 times the static load using our 40,000lb hydraulic press capacity.
- **Pressure test:** mounted tire is inflated with water up to 3.5 times the maximum inflation pressure to check bolts' strength and wheel stiffness.
- **Roll test** : wheel is pressed on a rotating drum for 1000 miles at maximum static load to detect eventual fatigue problems or bearing failure, etc...

When the wheel has passed all the tests then we install the wheel on an aircraft for ground and flight checks.

Note: when the wheel's design work for the Solar Impulse was occurring, **BERINGER's** proprietary dynamometer was employed, because of the **BERINGER** wheel' strength and our dynamometer's exceptional ability to load and measure the tire. On the aircraft, that tire and its Beringer wheel (5.00-5) were of course run tubeless, at a pressure of 10 bar (over 140psi) and a static load of 3,850lbs (2.7 times more than rated load).

Brake calipers:

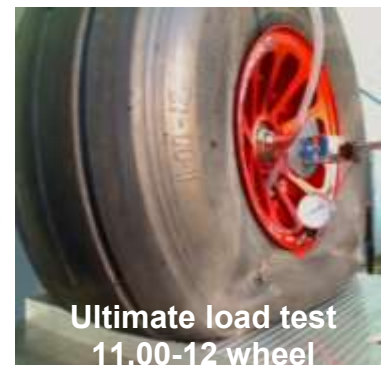
- Covered by AEROTEC® Patent
- 2 or 3 stainless steel polished pistons
- Body made of aerospace alloy to withstand high temperatures (>200Mpa at 200°C)
- Available for DOT4 fluid **OR** for MINERAL (MIL FLUID) (seals are different; specify and never mix)
- 2 inputs, thread size M10x1
- Full metallic brake pads (no rivets) for extended life



FEM –calculated and checked



Hydraulic press
44,000 Lbs



Ultimate load test
11.00-12 wheel



Roll test
29" tyres



Brakes discs :

- Stainless steel disc or high strength steel disc with coating
- Brake discs are made of highest quality material for thermal stability and long life

Many tests are done to certify brake calipers and discs. One of those tests is the dynamic torque test; for this test we use our dynamometer. The kinetic energy capacity is tested with this machine. The dyno allows us to push the brake system to its limits. Many sensors are installed to measure temperatures. All these tests are performed to ensure the total safety and reliability of the brake system. Kinetic energy values indicated in the next pages are not only calculated but measured and checked on real tests.

The endurance test is also a proof of quality and durability. The purpose of this test is to verify the life of the parts. The certification test requires 100,000 cycles at maximum operating pressure, but we test our parts to a minimum 200,000 cycles. This represents more cycles than the brake system will be subjected to in the entire aircraft life.

How to choose your wheel & brake system:

- Select the size of tire that you need
- Then select the wheel size required for this tire (use our application chart page 29)
- Check the static load rating: this is the weight on each wheel (at maximum static aircraft weight) that the wheel is capable of supporting.
- Check the kinetic energy rating : the first function of a brake system is to transform aircraft kinetic energy into heat. This heat is absorbed and dissipated mostly by the disc (a thicker disc will absorb more heat energy).

The kinetic energy required to stop an aircraft is a function of the mass of the aircraft and its landing speed. You can calculate the kinetic energy requirement of your aircraft by using the following formula:

$$\text{Kinetic Energy [FT-LBS]} = \frac{0.044 \times W \times V^2}{N}$$

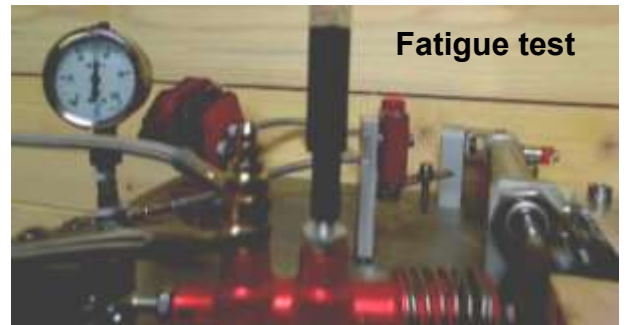
W = Gross weight (lbs)

V = Braking speed (kts)

N = Number of wheels with brakes

The kinetic energy values shown in the chart on page 25 are maximum values in case of an RTO (Rejected Take Off). This RTO value should be 30% higher than the value calculated above.

If you are not sure what system is right for your aircraft, give us a call.



ALG Landing Gear:

The patented ALG landing gear has to go through several tests for the certification process. The tests are in progress for the Piper SuperCub. Stay tuned ...



Wheels & Brakes - Complete kits

Installing BERINGER wheels and brakes on your Aircraft increases a lot the performance and improves your safety.

- **Weight saving and no risk of cracking** >> the wheels and calipers are fully CNC machined from aeronautical aluminum alloy. This manufacturing process gives 2 to 3 times more strength than cast wheels and prevents any risk of cracking. You save 6.60 Lbs to 11 Lbs (3 to 5kg) depending on your original brake system
- **Rolling distance dramatically reduced** >> increased safety level - landing on most airfields
- **High efficiency combined with easy landing** >> progressive rise in performance, no wheel locking thanks to the regulator or limiter
- **Tubeless wheels** >> less risk of bursting - can be used everywhere: on seal, grass and rough terrain (*tube mounting possible in case of emergency*)
- **Maintenance free hydraulic line** >> the circuit is sealed, it does not leak and suit aerobatic airplanes
- **Extended braking disc and pad life** >> BERINGER products are reliable and they are designed to last longer. The bearings are sealed and do not need maintenance. The aluminum parts are anodized for corrosion resistance.

You will find pages 12-17 the table of the complete main wheel and brake sets. They are designed to mount directly, replacing original equipment. Brake calipers use sintered metallic pads and stainless steel discs (except specifications) for increased life. Concerning homebuilt Aircraft, we recommend to read the FAQ page 6 that will guide you to chose the suitable parts.

MAIN WHEELS: the wheel & brake kits includes:

- Main wheels with calipers and discs
- Tires (mounted and pressure tested)
- Axles or adaptation parts (as required)
- Master brake cylinders & fluid reservoirs
- A parking brake valve (not always included)
- An anti-lock regulator or pressure limiter
- Stainless steel brake lines and fittings
- Detailed mounting instructions

The composition of the kits may vary depending on the Aircraft Type. (For example kits for Van's do not include the reservoirs nor the regulators).

ALIR anti-lock system: a real advance in terms of safety

Most kits include the ALIR anti-lock regulator allowing to brake in-line and to avoid wheel locking.

**ALIR System
Anti Lock In line
Regulator**

NOSE WHEEL: the nose wheel kit includes:

- A tubeless nose wheel with the tire (mounted on rim, pressure tested)
- An aluminum axle with bearing spacer

The composition of the kits may vary depending on the Aircraft Type.

TAILWHEEL: we recommend the GLR tailwheel, groundloop-resistant developed to increase the safety when you take off and you land.

The GLR is available for taildraggers up to 750 kg (1500lbs) . It features a robust design for rough airstrips. (complete description page 21).

Two types are available:

Tailwheel complete system including wheel and tire 2.80/2.50-4" (weight 8.31 Lbs/3.77kg) = **1118€ P/N TW-001**

BUSH tailwheel complete system including wheel and tire 4.00-4" (weight 9.08 Lbs/4.12kg) = **1344 € P/N TW-002**

**TUBELESS
WHEELS**



**PATENTED
groundloop-
resistant
tailwheel**

Wheels & Brakes - Complete kits

We also propose retrofit tailwheel kits to fit original mounting.

The tailwheel kit includes:

- A tubeless tailwheel with the tire (mounted on rim, pressure tested)
- An aluminum axle with bearing spacer

The composition of the kits may vary depending on the Aircraft Type.

Tailwheel
Scott
replacement



OPTION: Copilot brakes - Parking brake valve - Wheel caps - Amphibian use - Skis mounting

Depending on the aircraft, you will find in the table of the complete sets that is following next page, the option available. In most cases, the option is not included in the wheel and brake kit.

The copilot brake option includes:

the master cylinder (s) for the copilot seat + ends + hydraulic fittings + 1,50m hose (see the table of the complete kits).

The Parking brake valve option includes:

the parking valve + fittings + 1m hose.

On hand master cylinder HAB02, the parking pin is included (see the table of the complete kits).

The wheel cap option includes:

two wheel caps according to your wheel dimension and the screws if required (see the table of the complete kits).

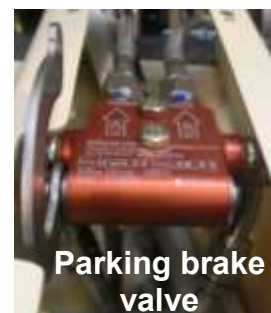
Copilot brakes



Cap on 6" wheel



Parking brake valve



P/N	OPTION	List of parts included in the OPTION	Price
INOBE	Amphibian use	Two stainless steel bearings for one wheel	137
FUS-013	1000-1500 Datum ski option	Two special axles for 4.00-6 wheels - Datum skis installation (only for T1 axles)	155 (each axle)
FUS-015	2000 Datum ski option	Two special axles for 6.00-6 wheels - Datum skis installation (only for T1 axles)	159 (each axle)

The Amphibian use option includes: two stainless steel bearings for one wheel.

Parking brake pin



The Datum skis option:

this option allows the mounting of DATUM skis on a BERINGER 4.00-6" wheel. It includes two special axles.

It is available only for axle template T1.



DATUM ski option:
a special axle for
BERINGER wheel



Tires included in the kits are standard ones. Contact us for specific use or other dimensions. The type of your airplane is not indicated in the table of kits available? We may still have it. Please contact us.

WE RECOMMEND FIRST MOUNTING OF TIRES ON WHEELS IN OUR PLANT. This service, free of charge, includes a pressure test, ensuring maximum security of the assembly.

FINISH : Red anodizing is standard color for wheels, brakes and master cylinders.

Calipers are ALWAYS red. Other colors can be available for certain wheels on special order with an extra delay at an additional cost of **89€** per batch of parts. **WARNING: Colors may vary.**

Wheels & Brakes - Complete kits

Aircraft type	Mains Kit P/N	Wheel Ø	Tires	Braking controls	Price	Nose/Tail wheel Kit P/N	Nose/ Tail wheel Ø	Tire	Price	Copilot Brake P/N	Price	Parking valve P/N	Price	Main wheel Cap P/N	Unit Price
A22 (Aeroprakt)	SA201	6"	15x6.00-6	Master B. Cylinder MP-003	2281	SA201A	6"	4.00-6"	411	Included	-	Included	-	-	-
Air Création -Tanarg	SAC01	-	-	1 Pressure regulator with Hydraulic hose	377	-	-	-	-	-	-	-	-	-	-
Alpha Trainer (Pipistrel)	SPP02	6"	4.00-6	MP-004.6	1899	-	4"	4.00-4	259	-	-	-	-	-	-
Arcus (S. Hirth)	SCH02	5"	380x150-5	Cable Master B. Cylinder HAC01	-	-	-	-	-	-	-	-	-	-	-
ASW17 (Schleicher)	-	5"	5.00-5	Hand M.cyl HAB01	-	-	-	-	-	-	-	-	-	-	-
ASW20 (Schleicher)	STC-005*	5"	5.00-5	Hand M.cyl HAB01	1058	-	-	-	-	-	-	-	-	-	-
ASW22 (Schleicher)	-	5"	5.00-5	Hand M.cyl HAB01	-	-	-	-	-	-	-	-	-	-	-
Atec Faeta	SAF01	6"	4.00-6	Hand M.cyl HAB02	1612	SAZ01A	4"	4.00-4	280	COP04	318	Included	-	BCH-003	25
Atec Zephyr	SAZ01	6"	4.00-6	Hand M.cyl HAB02	1838	SAZ01A	4"	4.00-4	280	COP04	318	Included	-	BCH-003	25
Autogyro Calidus	-	-	-	-	-	SAG01A	4"	4.00-4	294	-	-	-	-	-	-
Avid Flyer	SAF02	6"	15x6.00-6	Hand M.cyl HAB02	2115	-	-	-	-	-	-	-	-	BCH-003	25
Blackshape Prime	SBL01	6"	4.00-6	Master B. Cylinder MP-002	1279	SBL01A	4"	3.00-4	259	COP01	409	PKG01	256	BCH-003	25
Blackwing	SBW01	6"	4.00-6	Master B. Cylinder MP-003	2072	SBW01A	4"	4.00-4	259	COP02	410	PKG01	256	BCH-003	25
Breezer B-400	SBR01	5"	5.00-5	Master B. Cylinder MP-002	2041	SBR01A	5"	5.00-5	532	COP01	429	PKG01	256	BCH-002	25
BRM Aero XL8	SBM01	6"	4.00-6	Hand M.cyl HAB02	1617	SBM01A	4"	4.00-4	259	-	-	Included	-	BCH-003	25
BRM Aero XL8	SBM02	5"	5.00-5	Master B. Cylinder MP-002	1911	SBM01A	4"	4.00-4	259	COP01	429	PKG01	256	BCH-002	25
Bücker Jungmann (Air Res)	SBJ01	6"	6.00-6	Master B. Cylinder MP-002	2836	-	-	-	-	COP01	429	PKG01	256	BCH-004	45
C42 (retrofit) (Comco Ikarus)	SCC01	6"	4.00-6	Hand M.cyl HAB02	1613	SCC01A	4"	4.00-4	300	-	-	Included	-	BCH-003	25
Cheetah XLS (Aerosport)	SCX01	6"	4.00-6	Hand M.cyl HAB02	1852	-	-	-	-	COP04	318	Included	-	BCH-003	25
Cirrus SR20/22 Einbremse	STC-010	6"	15x6.00-6	In STC	6290	In STC	5"	5.00-5	-	In STC	-	-	-	-	-
Cirrus SR22/20 Doppelbremsen	STC-004	6"	15x6.00-6	In STC	6815	In STC	5"	5.00-5	-	In STC	-	In STC	-	-	-
Cozy (Rutan)	SLC05	5"	5.00-5	Master B. Cylinder MP-003	2394	-	-	-	-	COP02	410	PKG01	256	BCH-002	25
CTSW 2007 (Flight Design)	SFD01	6"	15x6.00-6	Master B. Cylinder MP-002	1705	-	-	-	-	-	-	PKG01	256	BCH-003	25
Diamond DA40 NG Tundra	STC-009	6"	8.50-6	In STC	*	In STC	6"	6.00-6	-	In STC	-	-	-	BCH-004	45
Diamond DA42	STC-013.1	6"	15x6.00-6	In STC	5952	In STC	5"	5.00-5	-	In STC	-	-	-	-	-
Diamond DA42 NG	STC-013.2	6"	15x6.00-6	In STC	5952	In STC	5"	5.00-5	-	In STC	-	-	-	-	-

Wheels & Brakes - Complete kits

Aircraft type	Mains Kit P/N	Wheel Ø	Tires	Braking controls	Price	Nose/Tail wheel Kit P/N	Nose/ Tail wheel Ø	Tire	Price	Copilot Brake P/N	Price	Parking valve P/N	Price	Main wheel Cap P/N	Unit Price
Discus 2A (S. Hirth)	STC-007*	5"	11x4.00-5	Cable Master B. Cylinder HAC01	1070	-	-	-	-	-	-	-	-	-	-
Dragonfly (Rutan)	SDF01	5"	5.00-5	Master B. Cylinder MP-003	1797	-	-	-	-	-	-	PKG01	256	-	-
Duo Discus (S. Hirth)	SCH02	5"	380x150-5	Cable Master B. Cylinder HAC01	-	-	-	-	-	-	-	-	-	-	-
Dynamic WT10 (Aerospool)	SAE03	5"	5.00-5	Master B. Cylinder MP-002	1745	SAE01A	6"	13x5.00-6	396	-	-	PKG01	256	-	-
Dynamic WT9 Club FG (Aerospool)	SAE02	6"	15x6.00-6	Master B. Cylinder MP-002	1833	SAE02A	6"	13x5.00-6	377	-	-	PKG01	256	-	-
Dynamic WT9 Speed RG (Aerospool)	SAE01	6"	15x6.00-6	Master B. Cylinder MP-002	1935	SAE01A	6"	13x5.00-6	396	-	-	PKG01	256	-	-
Edge 540 (Zivko)	SED01	5"	5.00-5	Master B. Cylinder MP-003	2260	-	-	-	-	COP02	410	PKG01	256	-	-
Ekolot Junior et Topaz	SEK01	6"	4.00-6	Hand M.cyl HAB02	1743	SEK01A	6"	4.00-6	442	COP04	318	Included	-	BCH-003	25
Eife S4 (Neukom)	-	5"	11x4.00-5	Hand M.cyl HAB02	-	-	-	-	-	-	-	-	-	-	-
Ellipse (A2Cz)	SEL01	6"	15x6.00-6	Master B. Cylinder MP-002	1660	SEL01A	6"	13x5.00-6	391	-	-	PKG01	256	BCH-003	25
Eurofox	SEF01	6"	15x6.00-6	Master B. Cylinder MP-002	2473	SEF01A	6"	13x5.00-6	377	COP01	429	PKG01	256	BCH-003	25
Europa monowheel	SEU02	6"	7.00-6	Hand M.cyl HAB02	1546	-	-	-	-	-	-	Included	-	-	-
Eurostar / Sportstar (Evektor)	SEU01	6"	15x6.00-6	Master B. Cylinder MP-002	1885	SEU01A	6"	13x5.00-6	396	COP01	429	PKG01	256	BCH-003	25
Extra 300 1-Size	STC-012.1	5"	5.00-5	In STC	2615	-	-	-	-	-	-	-	-	-	-
Extra 300 2-Size	STC-012.2	5"	5.00-5	In STC	2993	-	-	-	-	In STC	-	-	-	-	-
Falco	SFA01	5"	5.00-5	Master B. Cylinder MP-003	2330	SFA01A	5"	11x4.00-5	362	COP02	410	PKG01	256	BCH-002	25
Fascination BK	SFB01	5"	11x4.00-5	Hand M.cyl HAB02	1767	-	-	-	-	COP04	318	PKG01	256	BCH-002	25
FK 12 (FK Lightplanes)	SFK03	6"	4.00-6	Master B. Cylinder MP-002	1975	-	-	-	-	COP01	429	PKG01	256	BCH-003	25
FK Mark IV - ELA (FK Lightplanes)	SFK01	6"	4.00-6	Hand M.cyl MP-004.5	1762	SFK01A	4"	4.00-4	259	-	-	PKG01	256	BCH-003	25
FK Mark, II, III FK14 (FK Lightplanes)	SFK02	6"	4.00-6	Hand M.cyl MP-004.5	1762	SFK01A	4"	4.00-4	259	-	-	PKG01	256	BCH-003	25
Fournier RF3 UL	SRF01	6"	4.00-6	Hand M.cyl HAB02	1105	-	-	-	-	-	-	-	-	-	-
Furio (Falcomposite)	SFU01	5"	5.00-5	Master B. Cylinder MP-003	2422	SFU01A	5"	5.00-5	532	COP02	410	PKG01	256	BCH-002	25
G1 (G1 Aviation)	SGA01	6"	15x6.00-6	Hand M.cyl HAB02	1786	SGA01A	6"	15x6.00-6	411	COP04	318	Included	-	BCH-002	25
Gaz'Aile	SGZ01	5"	11x4.00-5	Hand M.cyl HAB02	1705	SGZ01A	4"	4.00-4	259	COP04	318	Included	-	BCH-002	25
Genev-01 (Genevation)	SGE01	5"	5.00-5	Master B. Cylinder MP-002	2414	-	-	-	-	COP01	429	PKG01	256	BCH-002	25

Wheels & Brakes - Complete kits

Aircraft type	Mains Kit P/N	Wheel Ø	Tires	Braking controls	Price	Nose/Tail wheel Kit P/N	Nose/ Tail wheel Ø	Tire	Price	Copilot Brake P/N	Price	Parking valve P/N	Price	Main wheel Cap P/N	Unit Price
Glaisair III - RLG	SGL02	5"	5.00-5	Master B. Cylinder MP-003	2365	SGL01A	5"	11x4.00-5	384	COP02	410	PKG01	256	BCH-002	25
HPH 304S	SHP01	5"	5.00-5	Master B. Cylinder MP-002	889	-	-	-	-	-	-	-	-	-	-
Jabiru J170	SJU03	6"	4.00-6	Master B. Cylinder MP-002	1542	SJU03A	6"	4.00-6	391	-	-	PKG01	256	BCH-003	25
Jabiru J170	SJU04	6"	4.00-6	Hand M.cyl HAB02	1796	SJU04A	6"	4.00-6	391	-	-	Included	-	BCH-003	25
Jabiru J400/J430	SJU01	5"	5.00-5	Master B. Cylinder MP-002	2034	SJU01A	6"	4.00-6	391	-	-	PKG01	256	BCH-002	25
Jabiru J400/J430	SJU05	5"	5.00-5	Hand M.cyl HAB02	1937	SJU05A	6"	4.00-6	391	-	-	Included	-	BCH-002	25
Jodel D20 ULM	SJD01	5"	5.00-5	Master B. Cylinder MP-002	1995	-	-	-	-	COP01	429	PKG01	256	BCH-002	25
Joker J300	SJO01	6"	4.00-6	Hand M.cyl HAB02	1885	-	6"	4.00-6	-	COP04	318	Included	-	BCH-003	25
Jonker JS1 (Jonker S.)	JON02	5"	5.00-5	Master B. Cylinder MP-003	1094	-	-	-	-	-	-	-	-	-	-
LAK Mini (UAB)	SLA03	4"	4.00-4	Hand M.cyl HAB01	814	-	-	-	-	-	-	-	-	-	-
LAK-17A (UAB)	STC-011	5"	5.00-5	Hand M.cyl HAB02	1070	-	-	-	-	-	-	-	-	-	-
LAK-17B (UAB)	SLA02	5"	5.00-5	Hand M.cyl HAB02	1028	-	-	-	-	-	-	-	-	-	-
Lambada (Distar)	SLA01	6"	4.00-6	Hand M.cyl HAB02	1613	-	-	-	-	COP04	318	Included	-	BCH-003	25
Lancair 320/360 RLG	SLC04	5"	11x4.00-5	Master B. Cylinder MP-003	2022	SLC04A	5"	11x4.00-5	369	COP02	410	PKG01	256	BCH-002	25
Lancair Legacy RLG	SLC01	5"	5.00-5	Master B. Cylinder MP-003	2394	SLC01A	5"	5.00-5	384	COP02	410	PKG01	256	BCH-002	25
Legend 540	SLG01	6"	4.00-6	Hand M.cyl short lever MP-004.7	2006	SLG01A	4"	4.00-4	259	-	-	-	-	-	-
Libelle H201 -(Glasflügel)	SLI01	5"	11x4.00-5	Hand M.cyl HAB02	1070	-	-	-	-	-	-	-	-	-	-
Long'Ez (Rutan)	SLE01	5"	5.00-5	Master B. Cylinder MP-003	2300	-	-	-	-	-	-	PKG01	256	BCH-002	25
LS4 (DG Flugzeugbau)	STC-015	5"	11x4.00-5	Cable Master B. Cylinder HAC01	1070	-	-	-	-	-	-	-	-	-	-
Magni Gyro M16/22	SMG01	6"	4.00-6	Cable actuated Brake m. cylinder MP-004.1	1649	SMG01A	4"	4.00-4	259	-	-	PKG01	256	BCH-003	25
Magni Gyro M16/22 Tundra	SMG02	6"	6.00-6	Cable actuated Brake m. cylinder MP-004.1	1771	SMG02A	6"	4.00-6	259	-	-	PKG01	256	BCH-003	25
Magni Gyro M16/22 reinforced	SMG03	6"	4.00-6 +PAD03	Cable actuated Brake m. cylinder MP-004.1	1681	SMG03A	4"	4.00-4	259	-	-	PKG01	256	BCH-003	25
Magni Gyro M24	SMG04	6"	4.00-6	Cable actuated Brake m. cylinder MP-004.1	1649	SMG01A	4"	4.00-4	259	-	-	PKG01	256	BCH-003	25
Magni Gyro M24 Tundra	SMG05	6"	6.00-6	Cable actuated Brake m. cylinder MP-004.1	1771	SMG02A	6"	4.00-6	259	-	-	PKG01	256	BCH-003	25

Wheels & Brakes - Complete kits

Aircraft type	Mains Kit P/N	Wheel Ø	Tires	Braking controls	Price	Nose/Tail wheel Kit P/N	Nose/Tail wheel Ø	Tire	Price	Copilot Brake P/N	Price	Parking valve P/N	Price	Main wheel Cap P/N	Unit Price
Magni Gyro M24 reinforced	SMG06	6"	4.00-6 +PAD03	Cable Master B. Cylinder MP-004.1	1681	SMG03A	4"	4.00-4	259	-	-	PKG01	256	BCH-003	25
MCR01 hand brakes Blade LG (Aupa Dynaero)	SDY02	5"	11x4.00-5	Hand M.cyl HAB02	1729	SDY01A	4"	4.00-4	384	COP04	318	Included	-	BCH-002	25
MCR01 rudder brakes Blade LG (Aupa Dynaero)	SDY03	5"	11x4.00-5	Master B. Cylinder MP-002	1893	SDY01A	4"	4.00-4	259	-	-	PKG01	256	BCH-002	25
MCR01 rudder brakes Oleo LG (Aupa Dynaero)	SDY01	5"	11x4.00-5	Master B. Cylinder MP-002	1893	SDY01A	4"	4.00-4	259	-	-	PKG01	256	BCH-002	25
MXS (MX Aircraft)	SMX01	5"	5.00-5	Master B. Cylinder MP-003	2260	-	-	-	-	-	-	-	-	BCH-002	25
Mysky NG4 (Rokospol)	SMS01	5"	5.00-5	Master B. Cylinder MP-002	1908	-	-	-	-	COP01	429	PKG01	256	BCH-002	25
Nimbus 3 / 4 S, Hirth	SCH03	5"	380x150-5	Cable Master B. Cylinder HAC01	-	-	-	-	-	-	-	-	-	-	-
Norécrin Nord1200-1201-1202-1203	SNR01	6"	6.00-6	Master B. Cylinder MP-002	2368	-	-	-	-	COP01	429	PKG01	256	BCH-004	45
Nynja - VLA LG (BestOff Flylight)	SSK03	6"	4.00-6	Hand M.cyl HAB02	1880	SSK01A	6"	13x5.00-6	419	COP04	318	Included	-	BCH-003	25
Nynja (BestOff Flylight)	SSK01	6"	4.00-6	Hand M.cyl HAB02	1733	SSK01A	6"	13x5.00-6	419	COP04	318	Included	-	BCH-003	25
Nynja (BestOff Flylight)	SSK04	4"	-	Hand M.cyl HAB02	1588	SSK01A	4"	4.00-4	419	COP04	318	Included	-	BCH-003	25
Pégase (Centrair)	STC-003*	5"	5.00-5	Hand M.cyl HAB02	1058	-	-	-	-	-	-	-	-	-	-
Phenix Gyro (Phenix Aero)	SPH01	6"	4.00-6	Hand M.cyl HAB02	1536	-	-	-	-	-	-	Included	-	BCH-003	25
Pilatus PC-6 10"	STC-002.4	10"	-	In STC	14951	In STC	4"	5.00-4	-	STC-002.5	1059	-	-	Included	-
Pilatus PC-6 10" co-pilot brakes	STC-002.3	10"	-	In STC	16022	In STC	4"	5.00-4	-	In STC	-	-	-	Included	-
Pilatus PC-6 12"	STC-002.1	12"	-	In STC	18101	In STC	4"	5.00-4	1059	STC-002.5	1059	-	-	Included	-
Pilatus PC-6 12" co-pilot brakes	STC-002.2	12"	-	In STC	19172	In STC	4"	5.00-4	-	In STC	-	-	-	Included	-
Pioneer 200/300 (Alpi Av.)	SPI01	6"	4.00-6	Master B. Cylinder MP-002	1785	SPI01A	4"	4.00-4	247	-	-	PKG01	256	BCH-003	25
Pioneer 400 (Alpi Av.)	SPI02	5"	5.00-5	Master B. Cylinder MP-002	1785	SPI02A	5"	5.00-5	532	COP01	429	PKG01	256	BCH-002	25
Piper PA-28 Räder 6" NLG	STC-014.2	6"	-	Master B. Cylinder MP-003	4699	Included	6"	-	-	Included	-	-	-	Included	-
Piper PA-28 Räder 5" NLG	STC-014.1	6"	-	Master B. Cylinder MP-003	4699	Included	5"	-	-	Included	-	-	-	Included	-
Pitts S1 (Aviat Air.)	SPT01	5"	5.00-5	Master B. Cylinder MP-003	2063	-	-	-	-	-	-	PKG01	-	BCH-002	-
Pitts Special / Kristen Eagle	SPS01	5"	5.00-5	Master B. Cylinder MP-003	2543	-	-	-	-	-	-	-	-	-	-
Rans Coyote S6	SRA02	6"	15x6.00-6	Master B. Cylinder MP-003	1960	-	-	-	-	COP02	410	PKG01	256	BCH-002	25
Rans Coyote S6 - first type	SRA01	6"	15x6.00-6	Master B. Cylinder MP-003	2204	-	-	-	-	COP02	410	PKG01	256	BCH-002	25
Rans S19	SRA03	5"	5.00-5	Master B. Cylinder MP-002	1941	SRA03A (5"	5.00-5	532	COP01	429	PKG01	256	BCH-002	25

Wheels & Brakes - Complete kits

Aircraft type	Mains Kit P/N	Wheel Ø	Tires	Braking controls	Price	Nose/Tail wheel Kit P/N	Nose/ Tail wheel Ø	Tire	Price	Copilot Brake P/N	Price	Parking valve P/N	Price	Main wheel Cap P/N	Unit Price
Robin DR400	STC-006	-	-	-	1352	-	-	-	-	-	-	-	-	-	-
Savage (Zlin A.) tires <29"	SSA01	5"	-	Master B. Cylinder MP-002	1941	TW-001	4"	2.80/2.50-4	1118	COP01	429	PKG01	256	BCH-002	25
Savage (Zlin A.) tires >29" dual brakes	SSA02	5"	-	Master B. Cylinder MP-002	2247	TW-001	4"	2.80/2.50-4	1118	COP01	429	PKG01	256	BCH-002	25
Savannah hand brake (ICP)	SSV02	6"	15x6.00-6	Hand M.cyl HAB02	1635	SSV01A	6"	15x6.00-6	396	-	-	Included	-	BCH-002	25
Savannah rudder brakes (ICP)	SSV01	6"	15x6.00-6	Master B. Cylinder MP-002	1855	SSV01A	6"	15x6.00-6	396	COP01	429	PKG01	256	BCH-002	25
SILA (AeroEast Eu.)	SIL01	6"	4.00-6	Master B. Cylinder MP-002	1621	SIL01A	6"	4.00-6	396	-	-	PKG01	256	BCH-003	25
Sinus, Virus (nose wheel) (Pipistrel)	SPP01	6"	4.00-6	Master B. Cylinder MP-002	2056	SPP01A	4"	4.00-4	296	COP01	429	PKG01	256	BCH-003	25
Sinus, Virus (tailwheel) (Pipistrel)	SPP01	6"	4.00-6	Master B. Cylinder MP-002	2056	JC-01	200x50	200x50	171	COP01	429	PKG01	256	BCH-003	25
Skylane (AirLony)	SSK02	6"	4.00-6	Master B. Cylinder MP-002	2017	-	-	-	-	COP01	429	PKG01	256	BCH-003	25
Skyleader 150/200	SSL01	5"	11x4.00-5	Hand M.cyl HAB02	1617	SSL01A	4"	4.00-4	270	COP04	318	Included	-	BCH-002	25
Skyranger (BestOff Flylight)	SSK01	6"	4.00-6	Hand M.cyl HAB02	1733	SSK01A	6"	13x5.00-6	419	COP04	318	Included	-	BCH-003	25
Speedcruiser (BOT)	SBT01	6"	4.00-6	Master B. Cylinder MP-002	1697	SBT01A	4"	4.00-4	259	-	-	PKG01	256	BCH-003	25
Sport Cruiser (Czech Sport Aircraft)	SSC02	5"	5.00-5	Master B. Cylinder MP-002	2118	SSC02A	5"	5.00-5	569	COP01	429	PKG01	256	BCH-002	25
Stemme S6	-	5"	5.00-5	Hand M.cyl HAB02	-	-	-	-	-	-	-	-	-	BCH-002	25
Sting Carbon (TL Ultralight)	SSC01	5"	11x4.00-5	Hand M.cyl HAB02	1888	SSC01A	4"	4.00-4	259	COP04	318	Included	-	BCH-002	25
Storch (Fly Synthesis)	SFS01	6"	4.00-6	Brake lever with park brake MP-004.6	1721	SFS01A	4"	4.00-4	259	-	-	Included	-	BCH-003	25
Storm Century	STR01	5"	11x4.00-5	Hand M.cyl HAB02	1646	STR01A	4"	4.00-4	369	COP04	318	Included	-	BCH-002	25
Super Guépard (Aero S. G.)	SGU01	6"	13x5.00-6	Hand M.cyl HAB02	1693	SGU01A	6"	15x6.00-6	396	COP04	318	Included	-	BCH-003	25
Just Aircraft SuperStol / Highlander	SSJ01	6"	-	Master B. Cylinder MP-003	2783	-	-	-	-	COP02	410	PKG01	256	BCH-002	25
Just Aircraft Highlander with ALG Landing gear	SSJ02	6"	-	Master B. Cylinder MP-003	2636	-	-	-	-	Included	-	PKG01	256	BCH-002	25
SWIFT Glider	SWI02	5"	5.00-5	Hand M.cyl MP-004.1	1260	-	-	-	-	-	-	-	-	-	-
Tecnam P2002	STP05	5"	5.00-5	Master B. Cylinder MP-003	1646	STP05A	6"	4.00-6	396	COP02	410	PKG01	256	BCH-002	25
Tecnam P2008	STP02	5"	5.00-5	Master B. Cylinder MP-003	2344	STP02A	5"	5.00-5	569	COP02	410	PKG01	256	BCH-002	25
Tecnam P92 5" (school use)	STP01	5"	5.00-5	Master B. Cylinder MP-003	1726	STP01A	6"	4.00-6	396	-	-	PKG01	-	BCH-002	25
Tecnam P92 6" (standard use)	STP03	6"	4.00-6	Master B. Cylinder MP-003	1509	STP03A	6"	4.00-6	396	-	-	PKG01	256	BCH-003	25
Tecnam P96	STP04	5"	5.00-5	Master B. Cylinder MP-003	1646	STP04A	6"	4.00-6	569	-	-	PKG01	256	BCH-002	25
Test Bonus	STB01	5"	5.00-5	Hand M.cyl HAB02	1439	-	-	-	-	-	-	Included	-	-	-
Tetras (Humbert Aviation)	STE01	6"	15x6.00-5	Hand M.cyl HAB02	1688	-	-	-	-	COP04	318	Included	-	BCH-002	25
Tetras for DATUM Skis	STE02	6"	4.00-6	Hand M.cyl HAB02	2003	-	-	-	-	COP04	318	Included	-	-	-
Texan (Fly Synthesis)	SFS01B	6"	13x5.00-6	Brake m. cylinder MP-002	1696	-	-	-	-	-	-	PKG01	256	BCH-003	25

Wheels & Brakes - Complete kits

Aircraft type	Mains Kit P/N	Wheel Ø	Tires	Braking controls	Price	Nose/Tail wheel Kit P/N	Nose/Tail wheel Ø	Tire	Price	Copilot Brake P/N	Price	Parking valve P/N	Price	Main wheel Cap P/N	Unit Price
Trail Nando Groppo	SNG01	6"	15x6.00-6	Brake m. cylinder MP-003	2099	TW-001	4"	2.80x2.50-4	1118	COP02	410	PKG01	256	BCH-004	45
Twin Otter DHC-6 -(Viking Air)	-	-	-	-	-	STC-008	8.90-12.5	-	*	-	-	-	-	-	-
Vampire Century (Flying Machines)	SVA01	6"	4.00-6	Hand M.cyl HAB02	1556	SVA01A	6"	4.00-6	377	COP04	318	Included	-	BCH-003	25
Van's RV10 finishing kit = Mains+tires+axles	SRVFI05	6"	15x6.00-6	-	2566	SRVFI01	5"	5.00-5	568	-	-	-	-	BCH-004	45
Van's RV14 finishing kit = Mains+tires+axles	SRVFI04	5"	5.00-5	-	1765	SRVFI01	5"	5.00-5	568	-	-	-	-	BCH-002	25
Van's RV14 fuselage kit = Pilot-Co-pilot brakes	SRVFI05	-	-	Master B. Cylinder MP-002	1129	-	-	-	-	Included	-	PKG01	256	-	-
Van's RV3	SRVCO03	5"	11x4.00-5	Master B. Cylinder MP-002	2109	-	-	-	-	-	-	PKG01	256	BCH-002	25
Van's RV6-7-8-9 finishing kit = Mains+tires+axles	SRVFI02	5"	5.00-5	-	1637	SRV02A	5"	11x4.00-5	366 329?	-	-	-	-	BCH-002	25
Van's RV6-7-8-9-10 fuselage kit = Pilot brakes	SRVFI01	-	-	Master B. Cylinder MP-002	747	-	-	-	-	-	-	-	-	-	-
Van's RV6-7-8-9-10 fuselage kit = Pilot/Co-pilot brakes	SRVFI02	-	-	Master B. Cylinder MP-002	1257	-	-	-	-	Included	-	-	-	-	-
Van's RV6-7-8-9-10 fuselage kit = Pilot/Co-pilot brakes + Parking	SRVFI04	-	-	Master B. Cylinder MP-002	1580	-	-	-	-	Included	-	Included	-	-	-
Van's RV6-7-8-9-10 fuselage kit =Pilot brakes +Parking brake	SRVFI03	-	-	Master B. Cylinder MP-002	1013	-	-	-	-	-	-	Included	-	-	-
Van's RV8 - Grove LG finishing kit =Mains+tires+axles Vari'Ez (Rutan)	SRVFI03	5"	5.00-5	-	2212	SRV02A	5"	11x4.00-5	369 329?	-	-	-	-	BCH-002	25
Ventus2 A (S. Hirth)	SLE02	5"	11x4.00-5	Master B. Cylinder MP-002	2030	-	-	-	-	-	-	PKG01	256	BCH-002	25
VL3 Evolution (JMB A)	STC-007*	5"	11x4.00-5	Cable Master B. Cylinder HAC01	1070	-	-	-	-	-	-	-	-	-	-
Wild Thing	SVK01	6"	4.00-6	Master B. Cylinder MP-002	1885	SVK01A	4"	4.00-4	259	COP01	429	PKG01	256	BCH-003	25
Zenair CH650E	SWT01	6"	15x6.00-6	Hand M.cyl HAB02	1952	-	-	-	-	-	-	Included	-	-	-
Zenair CH750	SZH06	6"	15x6.00-6	Master B. Cylinder MP-002	1822	SZH06A	6"	15x6.00-6	396	COP01	429	PKG01	256	BCH-002	25
Zenair CH601XL	SZH07	6"	15x6.00-6	Master B. Cylinder MP-003	2138	SZH06A	6"	15x6.00-6	396	COP02	410	PKG01	256	BCH-002	25
	SZH05	6"	15x6.00-6	Master B. Cylinder MP-002	1877	SZH06A	6"	15x6.00-6	396	COP01	429	PKG01	256	BCH-002	25



PILATUS PC-6

Save up to 16€ / hour = Investment paid off in less than 1000 hours
(maintenance cost = 3€ with BERINGER / 19€ with original parts)

180 Pilatus PC-6 equipped with the complete wheel & brake set, launched in 2010.

More than 240,000 landings/60,000h have proven the reliability and efficiency of the wheel & brake set.

Wheel dimension available: **12" and 10"**

*No corrosion
Optimised to last longer*



CIRRUS SR22/20

INCREASE YOUR SAFETY AND REDUCE YOUR ROLLING DISTANCE

SINGLE wheel & brake kit: lower operating costs

DUAL wheel & brake kit: more safety with dual caliper and the ALIR regulator

→ reduced landing distance for short runways

Both kits include the three tubeless wheels, pilot and co-pilot brakes, High Energy brakes with Formula1 ventilated pistons and cooling fins.



courtesy of Cirrus Aircraft

PIPER PA-28 Cherokee, Warrior, Archer

A complete upgrade (3 wheels - Pilot/Co-pilot brakes - Stub axles/ strut tubes)

Easy maintenance, amazing braking performance, weight saving, improved safety.

This complete kit that replaces the original parts, is installed without modification.



EXTRA 300

**AMAZING PERFORMANCE
and WEIGHT SAVING**

The wheel and brake kit was developed in collaboration with Nicolas Ivanoff. BERINGER advanced technology has allowed to save 3.5kg (6.61 Lbs) due to the optimized design and to the manufacturing process. CNC machined parts are 2 to 3 times stronger than cast wheels.



DIAMOND DA42/DA42NG

**DRAMATIC REDUCTION of WHEEL LOCKING
and LIFE-CYCLE COSTS.**

Investment paid off in less than 800 hours

(estimated value, depending on the use).

Progressive rise in performance and better control of the brakes allow to reduce the stopping distance by 20% or more. It reduces the tire wear and increases the safety level. Discs and brake pads last 3x longer than standard. The complete upgrade includes the 6" main wheels, the 5" nose wheel and the brakes.



DIAMOND DA40NG TUNDRA

REDUCED STOPPING DISTANCE and MAINTENANCE COSTS - WEIGHT SAVING (5kg - 11 Lbs)

The TUNDRA kit for DA40NG allows to land safely on rough terrain. The complete upgrade includes the three tubeless wheels, the tires and the pilot/co-pilot brakes.

Stopping distances reduced
Weight saving – 5 kg/11 Lbs
Maintenance costs reduced



ROBIN DR400/DR300/HR2160

**BRAKING SYSTEM UPGRADE: STRONG BRAKES
REDUCED STOPPING DISTANCE and MAINTENANCE COSTS**

The kit includes 2 inner bowls to be bolt on the existing wheels that are supporting the floating brake discs, made in steel chrome molybdenum :

- No vibration at braking due to disc deformation
- The disc can expand when it heats up without any strength and avoid any buckling or crack



Twin Otter DHC-6:

**SWITCH TO A HIGH PERFORMANCE NOSE WHEEL.
OPTIMIZED TO LAST LONGER.**

- Excellent resistance to corrosion due to the anodized aluminum parts.
- Greasing of the bearings spaced out due to lipseals, O-Rings.

More than 70 Twin Otter have been retrofitted so far



GLIDERS

UPGRADE YOUR BRAKES and SAVE WEIGHT (from 3.30 Lbs to 7.70 Lbs / 1.5 to 3.5kg)

Increase your safety when you land off-airfield. You can count on powerful brakes in any case.

The wheel is aluminum red anodized, fully CNC machined, with O-Ring for tubeless mounting. The brake caliper uses sintered metallic pads and stainless steel disc for increased life.

The kit includes a pressure limiter and the complete hydraulic line. The master cylinder can be cable operated.



Kits for : ASW20, Discus/Ventus 2A, Duo Discus, Arcus, LS4, HPH304S, Lak17A, MiniLak, Jonker, Pegase, H201Libelle, Swift



TUBELESS



ALASKAN LANDING GEAR™

Rough terrain... Are you ready?



Alaskan Landing Gear™

High Energy Absorption System

Greater Safety for taildraggers and backcountry pilots.

The ALG patented Landing Gear is designed to improve the safety on rough terrain. Thanks to the oleo-pneumatic shocks, it absorbs the surface defects.

The G-factor test has demonstrated that the ALG provides three times less structural impact

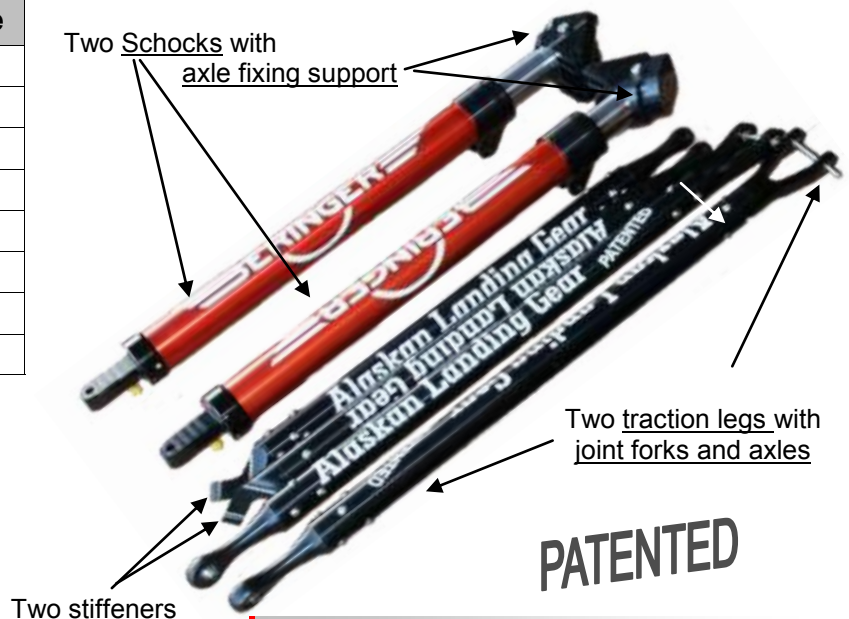
- High efficiency LG with oil/pneumatic, no-rebound dampers
- 12 inch damping travel - for high energy dissipation
- Strong design for bush use (3G proof tested)
- Lightweight, high strength aluminum (2024)

Combined with the BERINGER light and powerful wheels and brakes, as well as with the groundloop-resistant patented tailwheel, the ALG offers the **ULTIMATE LANDING SOLUTION** that protects the Aircraft airframe and improves the safety.



P/N	ALG landing gear for :	Price
AV-CUB-020	Cubcrafters Carbon Cub	5390
AV-JUST-120	Just Aircraft Highlander	4800
AV-SAF-120	Kitplanes for Africa Safari	4800
AV-SVNA-120	Savannah Taildragger	4800
AV-GROP-120	Trail Nando Groppo	4800
AV-MAV-120	Maverick	4800
AV-ZLIN-120	Zlin Savage	4800
AV-CUB-020	PA18 SuperCub experimental	5390

The V cabane is not included.
Please contact us.



PATENTED

The STC for the Piper SuperCub is in progress. Stay tuned...

Bush- Backcountry flying

Extend the landing possibilities of your STOL airplane with **BERINGER** systems:

- Groundloop-resistant Tailwheel
- Alaskan Landing Gear for taildragger
- Ultralight Bush wheels
- Powerful dual brakes
- ALIR anti-skid
- Ultralight 26" Bush tires

We offer you a new dimension of freedom with bush wheels and low pressure tires.
Please refer to pages 10-17 for complete wheel and brake sets and page 28-29 for tires.



Dual braking system for tires over 29"
 See page 16



Cross wind... are you ready? Patented groundloop-resistant tailwheel



Greater Safety for taildraggers



PATENTED

Double pivot system, lockable from the cockpit:

Unlocked: the tailwheel is free to castor for taxiing. Steering is accomplished using the brakes on the rudder pedals. **Locked:** the tailwheel is locked to the rudder for take off and landing. The tailwheel follows the rudder movement.

For taildraggers up to 750kg (1500lbs) - robust design for rough airstrips.

P/N	Description	Wheel Ø	Tire	Weight		Price
				Lbs	kg	
TW-001	Complete tailwheel including the wheel and the tire	4"	2.80/2.50-4"	8.31	3.77	1118
TW-002	Complete bush-tailwheel including the wheel and the tire	4"	4.00-4"	9.08	4.12	1344

Wheels & Brakes

4" - the lightest 4" wheel in the World

Only 1.1kg (39oz) - (RF-013)

- Static load rating of 528 lbs (245kg)
- Dimension 3.50-4
- Single-piston brake caliper
- Lightweight floating disc
- Suitable for light aircraft, up to 770 Lbs MTOW (350kg)

TUBELESS



5" - STANDARD Serie - (RF-019 RF-020)

- Static load rating of 1,518 lbs (703kg)
- Dimensions 5.00-5 and 4.00-5
- 2 piston standard brake (patented)
- Lightweight stainless steel disc
- Suitable for LSA, experimental and gliders

TUBELESS



5" - HL Series - (RF-018 RF-021 RF-022)

- Static load rating of 1518 Lbs (703 kg)
- Dimensions 5.00-5 and 4.00-5
- HE 2 piston caliper with cooling fins (patented)
- + 40% Braking torque
- 2 types of high strength discs
- Insulated full metallic brake pad
- Caliper EA-002: for 2 seat aircraft (RV's)
- Caliper EA-002.2 (thicker disc): for high landing speed aircraft (Lancair, Glasair, Aerobatic...)

TSO & ETSO

TUBELESS



6" - SL Series - (RF-009 RF-004)

The SL wheel designed in 2 parts instead of 3, is even lighter and allows an easy maintenance.

Static load rating is increased up to 968 lbs (440kg) to fit Aircraft up to 1,870 Lbs (850kg) (gross weight)

- Easy maintenance: only 1 x o-ring seal
- Sizes : 4.00-6 and 6.00-6
- 2 piston standard brake (patented) and lightweight stainless steel disc
- Suitable for ultra light aircraft and LSA

The RF-009 with dual caliper EA-006 is available for tires >29" (increased braking torque).

The RF-014 6.00-6 SL wheel includes a larger bearing in the inner rim.

RF-004
+ EA-006

TUBELESS



RF-009
+ 2xEA-006

Vintage spoke wheel with brake

- Tire 3.50-19" Ribbed (vintage style)
- Aluminum rim with stainless steel spokes
- Load: suitable for Aircraft < 1,100lbs
- Price: **802€** per wheel (including wheel+brake+tire+tube+spokes)
- Weight: 20 Lbs (9.12 kg) (wheel+brake+tire+tube+spokes)



Wheels & Brakes

Designed for SuperCub and similar airplanes :

6" - LE (RF-015)

- Static load rating 1,430 lbs (663kg) to fit Aircraft up to 2,728 Lbs (1240 kg) (gross weight)
- Easy maintenance: only 1 o'ring seal
- Size : 6.00-6"
- 2 piston brake EA-003.2 (patented) and stainless steel disc

RF-015 - 6"



TUBELESS



10" - LE (RF-024)

- Static load rating 1,430 lbs (663kg) to fit Aircraft up to 2,728 Lbs (1240 kg) (gross weight)
- Easy maintenance: only 1 o'ring seal
- Size : 8.50-10"

RF-024- 10"

6" - HE Series - (RF-006)

- Static load rating 1,870 Lbs (866 kg)
- Dimension 6.00-6
- HE 2 piston caliper with cooling fins (patented)
- doubled braking torque compared to SL series
- 4 types of high strength discs and insulated full metallic brake pads
- Caliper EA-003: for 2 seat aircraft (Taildragger, Champion, Glasair)
- Caliper EA-003.3 (thicker disc): for 4 seat aircraft (Lancair IV, Cirrus SR20)
- Caliper EA-003.4: dual caliper for increased braking torque, ultra short braking distance (suitable for Cirrus SR22, DA42,...)
- Caliper EA-003.5: Dualcaliper (side by side) for increased braking torque..

TSO & ETSO

TUBELESS



6" - HL Series - (RF-017)

- Static load rating 2310 Lbs (1070kg)
- Dimension 6.00-6
- Caliper EA-003.X: 4 pistons for increased braking torque and more braking power for aircraft up to 2,400 kg.

TUBELESS



8" (RF-010)

- Static load rating 3,568 Lbs (1,417 kg)
- Dimension 18x5.5
- HE 2 piston caliper EA-008, with cooling fins (patented)
- High strength discs
- Insulated full metallic brake pads

TUBELESS

TSO & ETSO



10" (RF-011) and 12" (RF-003)

- Static load rating 3,080lbs (1400kg)
- Dimensions 10" : 24x7.7 and 12" : 11.00-12"
- Caliper EA-001, 3 pistons (patented)
- Insulated full metallic brake pads

TUBELESS



Wheel caps

- Anodized cap for wheel - Billet aluminum machined on CNC for 5" - 6" wheels

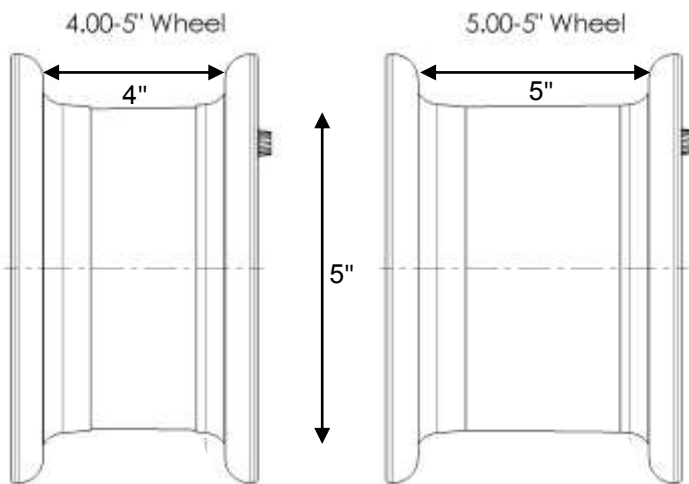


Wheels & Brakes

Wheel P/N	Certification	Wheel size	Static load Lbs	Static load Kg	Limit load Lbs	Limit load Kg	Price per wheel	Brake Caliper (Disc) P/N	Price per Brake	Braking torque inch.-lbs	Max RTO Energy ft.-lbs	Assy weight Lbs	Assy weight Kg
4" wheel													
RF-013	-	3.50-4"	528	245	1848	856	174	EA-009 (DSC-013)	149	1400	105000	2.43	1.10
5" wheels - STANDARD Serie													
RF-019	-	5.00-5"	1518	703	6820	3160	249	EA-006 (DSC-006)	150	2450	140000	4.92	2.23
RF-020	-	4.00-5"	1518	703	6820	3160	249	EA-006 (DSC-006)	150	2450	140000	4.74	2.15
5" wheels - HL Series													
RF-018	TSO	5.00-5"	1518	703	6820	3160	320	EA-002 (DSC-008)	154	4500	210000	5.82	2.64
RF-018	TSO	5.00-5"	1518	703	6820	3160	320	EA-002.2 (DSC-008.2)	197	4500	361000	6.37	2.89
RF-022	-	5.00-5"	1518	703	6820	3160	368	EA-002 (DSC-008)	154	4500	210000	5.88	2.67
RF-021	-	4.00-5"	1518	703	6820	3160	320	EA-002 (DSC-008)	154	4500	210000	5.61	2.55
RF-021	-	4.00-5"	1518	703	6820	3160	320	EA-002.2 (DSC-008.2)	197	4500	361000	6.16	2.80
6" wheels - SL series													
RF-009	-	6.00-6"	968	440	3388	1540	322	EA-006 (DSC-006)	150	2450	140000	5.81	2.64
RF-004	-	4.00-6"	968	440	3388	1540	279	EA-006 (DSC-006)	150	2450	140000	5.47	2.48
6" wheel - LE													
RF-015	-	6.00-6"	1430	663	5005	2319	313	EA-003.2 (DSC-014)	228	4900	250000	7.13	3.23
6" wheels - HE Series													
RF-006	TSO	6.00-6"	1870	866	6545	3033	366	EA-003.5 (DSC-009.4)	597	9800	550000	11.62	5.27
RF-006	TSO	6.00-6"	1870	866	6545	3033	366	EA-003 (DSC-009)	238	4900	355000	8.11	3.68
RF-006	TSO	6.00-6"	1870	866	6545	3033	366	EA-003.3 (DSC-009.3)	281	4900	500000	9.03	4.09
RF-006	TSO	6.00-6"	1870	866	6545	3033	366	EA-003.4 (DSC-009.3)	422	9800	550000	10.91	4.95
RF-016	-	6.00-6"	1870	866	6545	3033	460	EA-003.3 (DSC-009.3)	281	4900	678000	9.03	4.09
6" wheels - HL Series													
RF-017	-	6.00-6"	2310	1070	9460	4383	399	EA-004.3 (DSC6009.5)	548	9300	980000	13.40	6.08
RF-017	-	6.00-6"	2310	1070	9460	4383	399	EA-004.2 (DSC-009.5)	548	9300	975000	13.31	6.04
RF-017	-	6.00-6"	2310	1070	9460	4383	399	EA-004.1 (DSC-009.5)	*	9800	975000	13.38	6.07
8" wheel													
RF-010	TSO	18x5.5"	3568	1417	9625	4460	*	EA-008 (DSC-012)	*	9300	1115000 or 1200000	17.04	7.73
10" wheel													
RF-011	-	24x7.7"	3080	1427	8160	3782	*	EA-001 (DSC-011)	*	16900	845000	25.26	11.46
RF-024	-	8.50-10"	1430	663	5110	2275	*	EA-010.1 (DSC-015)	*	8050	390.000	11.54	5.24
12" wheel													
RF-003	-	11.00-12"	3080	1427	8160	3782	*	EA-001 (DSC-011)	*	16900	845000	31.35	14.22

* please contact us

1 Lbs ↔ 0.45 kg 1 kg ↔ 2.2 Lbs



Wheel Cap P/N	main wheel	Unit Price
BCH-003	4.00-6" SL series	25
BCH-002	5" & 6.00-6" SL series	25
BCH-004	6" HE series & HL serie	45
BCH-006	6" LE	45
BCH-005	8"	45
BCH-001	10" & 12"	119

FINISH : Red anodizing is standard color for wheels, brakes and master cylinders.

Calipers are ALWAYS red. Other colors can be available for certain wheels on special order with an extra delay at an additional cost of **89€** per batch of parts.

WARNING: Colors may vary.

CAUTION: static load valid only with appropriate tire
Spare part catalog on demand. Please contact us.

Nose wheels & tailwheels

BERINGER wheels without brake for nose wheel or tail wheel are:

- High strength aluminum alloy machined from solid on CNC
- TUBELESS (except JC-01) two or three pieces plus O-Ring and rigid valve
- Sealed ball bearings for optimal durability
- Use BERINGER tapered axles with those wheels (except 200x50 version)

Tailwheel 200x50 (RA-004)

- Tire 200x50 with tube
- For 5/16" bolt
- Weight : 9.45 oz / 268g
- Only fork mounting
- Suitable for Pipistrel Sinus

Delivered mounted with 6ply tyre and tube

830g



4" ultralight WHEEL (RA-003)

- Bush tail wheel
- Nose wheel for LSA ULM
- High load rating
- Cantilever **OR** fork mounting
- Perfect for ultralight aircraft

TUBELESS



540g

TUBELESS



5" Nose wheel for homebuilt aircraft

TUBELESS



6" SL nose wheel for ultralight aircraft and LSA

TUBELESS

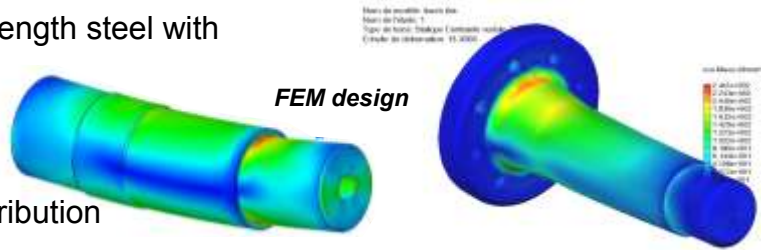


Part/N	certification	size	Static load		Limit load		weight		Price
			Lbs	kg	Lbs	kg	Lbs	kg	
RA-004		200x50	337	153	1349	612	0.59	0.268	171 with tire
RA-003		3.50-4"	539	245	1888	856	1.36	0.62	183
RA-001		5.00-4	1034	469	2810	1274	2.43	1.1	729
RA-015		4.00-5"	1551	703	6968	3160	3.10	1.41	268
RA-014	TSO	5.00-5"	1551	703	6968	3160	3.28	1.49	351
RA-009		4.00-6 SL	970	440	3396	1540	2.93	1.327	305
RA-010		6.00-6" SL	970	440	3396	1540	3.26	1.48	337
RA-005	TSO	6.00-6" HE	2135	968	7642	3466	4.56	2.07	432
RA-013		6.00-6" HL	2360	1070	9665	4383	5.41	2.455	432
RA-008	TSO	8.90-12.5"	2023	917	9103	4128	16.43	7.45	4355

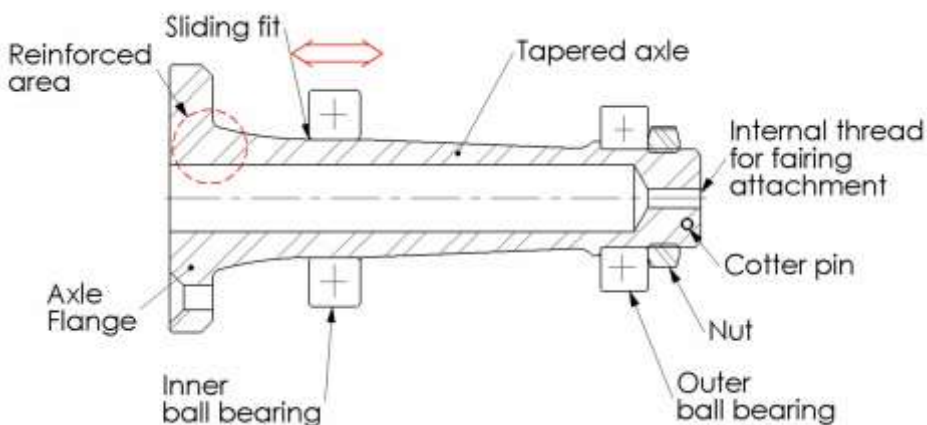
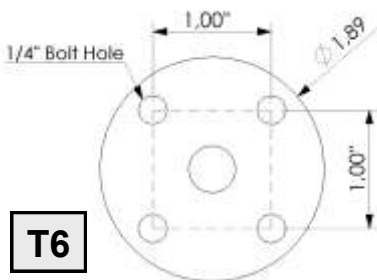
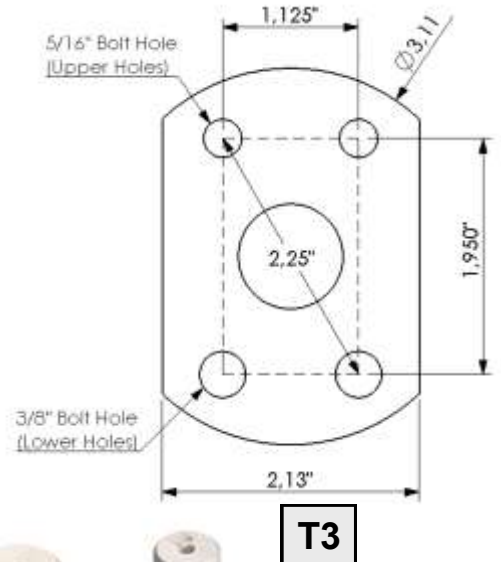
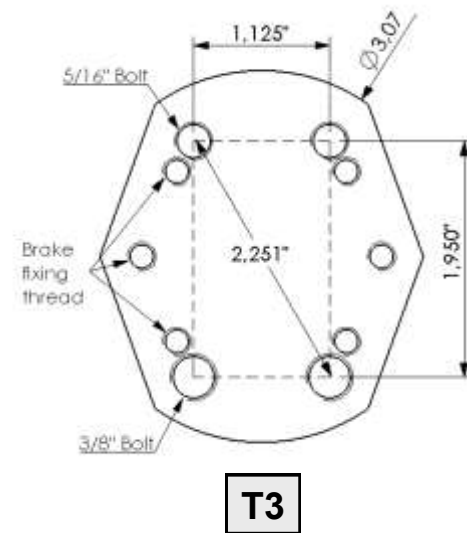
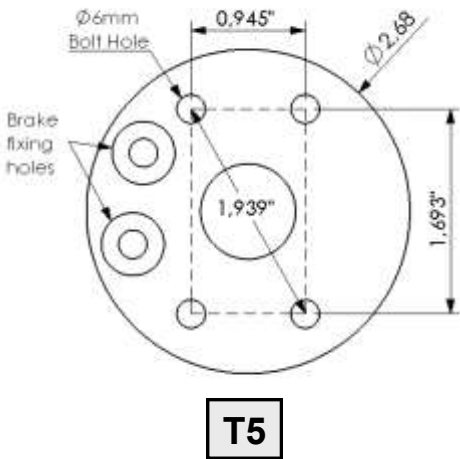
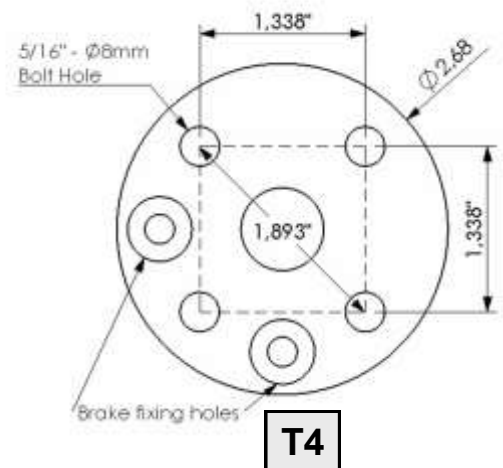
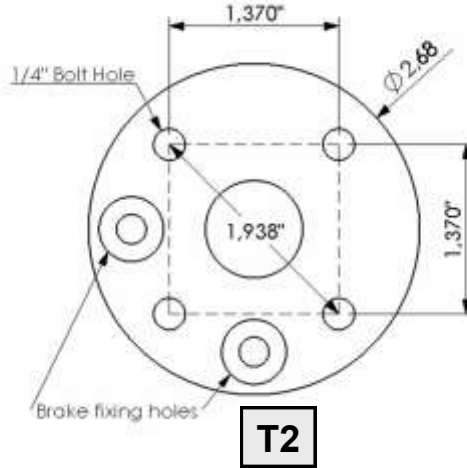
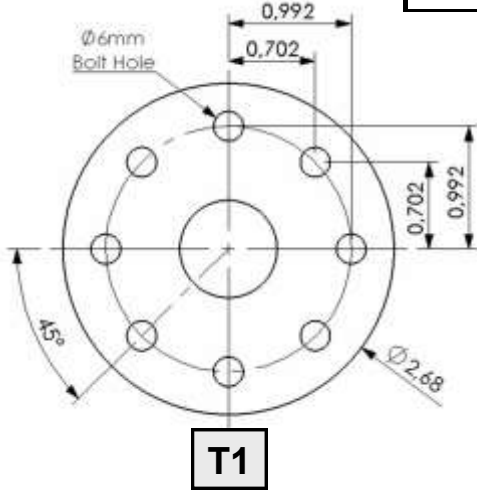
Axles

Material: High strength anodized aluminum or high strength steel with nickel coating

- Different types of axle available:
 - for wheel fork (supported at both ends)
 - for cantilever installation
- FEM calculated for optimized weight and stress distribution



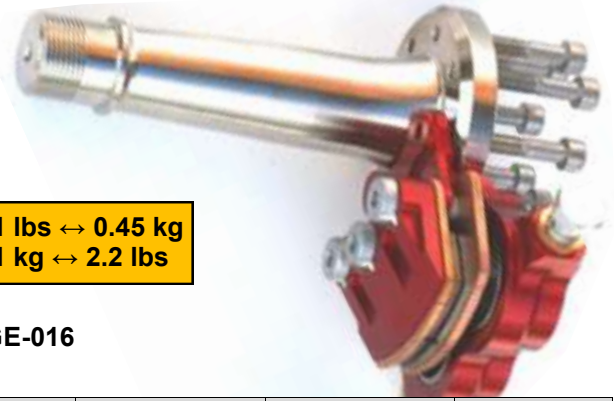
AXLE BOLT TEMPLATES (dimensions in inches)



Axles



1 lbs ↔ 0.45 kg
1 kg ↔ 2.2 lbs



P/N	DESCRIPTION (all aluminum axles are anodized except specifications)	Axle thread	Static load rating per axle		Limit load		weight		Price
			Lbs	kg	Lbs	kg	oz	kg	
FUS-001+BGE016	Tapered aluminum Axle	M25X1.5	780	354	2714	1231	8.8	0.25	69+9.45
FUS-004	Tapered steel Axle <i>Nickel coated</i>	M25X1.5	1430	649	4976	2257	21.92	0.62	149
FUS-005	Tapered aluminum Axle	M25X1.5	950	431	3306	1499	8.16	0.23	69
FUS-005.1	Tapered aluminum Axle	M25X1.5	950	431	3306	1499	8.16	0.23	69
FUS-006	Tapered aluminum Axle	M15X1	401	182	1397	633	2.72	0.08	62
FUS-007	Tapered aluminum Axle	M35X1.5	1650	748	5775	2619	17.92	0.51	149
FUS-007.1	Stainless steel axle	M35X1.5	2090	948	7315	3317	45.12	1.28	404
FUS-008	Tapered aluminum Axle	M25X1.5	700	317	2450	1111	15.36	0.44	128
FUS-009	Tapered aluminum Axle	M25X1.5	860	390	2993	1357	8.8	0.25	146
FUS-010	Tapered aluminum Axle	M25X1.5	832	377	2894	1313	11.84	0.33	188
FUS-011	Tapered aluminum Axle	M25X1.5	780	354	2714	1231	10.24	0.29	67
FUS-012	Tapered aluminum Axle	M25X1.5	832	377	2894	1313	8.32	0.24	135
FUS-013+ BGE026	Tapered aluminum Axle	3/4" -16	780	354	2714	1231	12.64	0.36	141+9.45
FUS-014.1	Tapered aluminum Axle	M30X1.5	1400	635	4900	2222	16.00	0.45	149
FUS-015	Tapered aluminum Axle	M25X1.5 +3/4"-16	780	354	2714	1231	16.80	0.48	159
ECR-001	Aluminum nut	M35x1,5	-	-	-	-	0.8	0.02	21
ECR-002	Aluminum nut	M25x1,5	-	-	-	-	0.32	0.01	10.5
ECR-004	Aluminum nut	M30x1,5	-	-	-	-	0.64	0.02	21
E-HN-008	Steel nylstop nut	3/4" -16	-	-	-	-	1.9	0.054	9.66
BGE-016	Spacer for axle FUS-001	-	-	-	-	-	0.16	0.01	9.45
BGE-026	Spacer for axle FUS-013	-	-	-	-	-	0.16	0.01	9.45

Axle/wheel fitting table

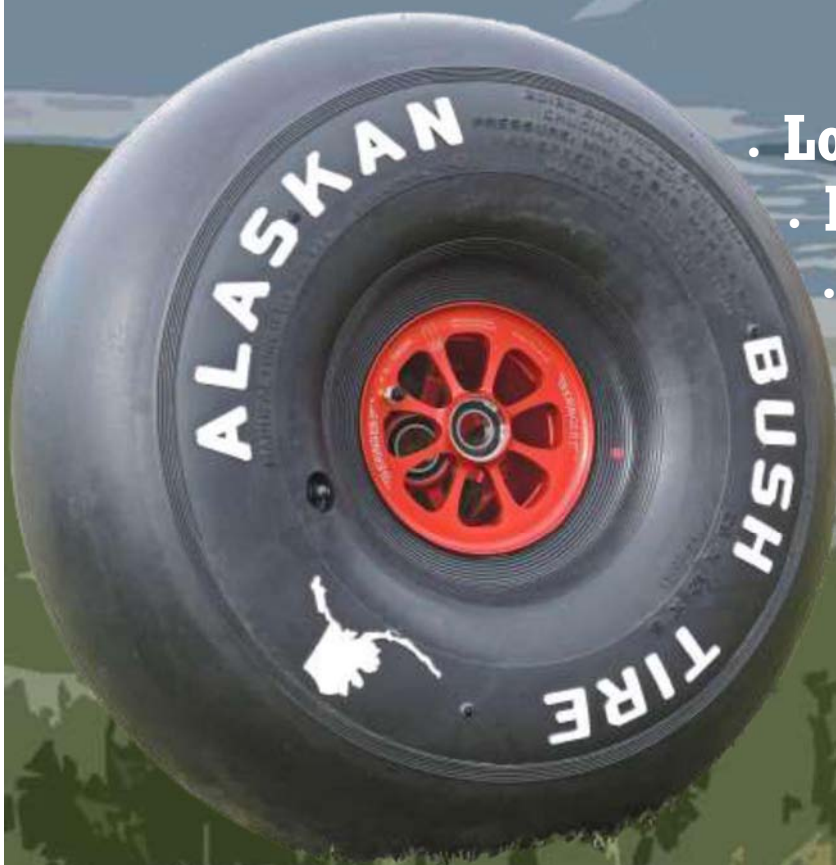
Other axles are available. Please contact us.

Axle P/N / Wheel → ↓	3.50-4"	4.00-5" & 4.00-5"HL	5.00-5" & 5.00-5"HL	4.00-6" SL	6.00-6" SL	6.00-6" LE	6.00-6" HE	6.00-6 HL
FUS-001	-	-	T1, T2, T4, T5	T1, T2, T4, T5	-	-	-	-
FUS-004	-	-	T1, T2	-	-	-	-	-
FUS-005	-	T1, T2	-	-	-	-	-	-
FUS-006	T6	-	-	-	-	-	-	-
FUS-007	-	-	-	-	-	-	T3	-
FUS-007.1	-	-	-	-	-	-	-	T3
FUS-008	-	-	-	-	T3	-	-	-
FUS-009	-	-	T2	-	-	-	-	-
FUS-010	-	-	-	-	T1, T2, T4, T5	-	-	-
FUS-011	-	-	-	T3	-	-	-	-
FUS-012	-	-	-	-	1"1/4 US	-	-	-
FUS-013	-	-	-	T1	-	-	-	-
FUS-014.1	-	-	-	-	-	T3	-	-
FUS-015	-	-	-	-	T1	-	-	-

Alaskan Bush Tire

THE FIRST FULL-UP BUSHWHEEL
BUILT SPECIFICALLY
FOR LSA AND ULTRALIGHT AIRCRAFT
Smooth landing, even on rough terrain.

PRODUCED in Alaska for BERINGER
By Airframes Alaska, Expert in Alaskan bush tires.



- . Low pressure tire
- . For 6.00-6 inch wheels
- . Diameters 26" and 29"
- . Weight 14.3 and 19.9 Lbs
- . Unit price : 1045€ for 26"
1255€ for 29"

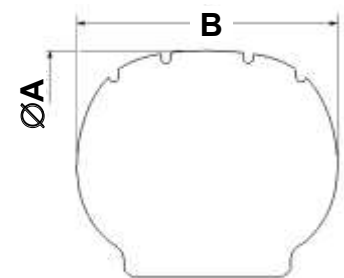
Features: Kevlar cording - reengineered sidewalls that provide the ideal flex and energy absorption for lighter aircraft.

This tire is BERINGER AERO exclusivity for Europe

Tires

P/N	Description	Static load lbs	Ø A (inch)	B (inch)	Weight		Price
					Lbs	kg	
PAG05	Tire and tube 200x50 6PLY TT	-	7,90	2,00	1.10	0,50	47
PAG07	Tire 2.80/2.50-4" 6PLY Kenda TL	-	9,00	2,80	1.32	0,60	25
PAG04	Tire 2.80/2.50-4" 6PLY Aero Classic TT	475	9,00	2,80	1.76	0,80	58
PAG06	Tire 10x3.50-4" 4PLY AeroClassic TT	460	9,80	3,20	2.54	1,15	61
PAG02	Tire 3.00-4" 4PLY Veloce TL	-	10,30	3,50	1.32	0,60	25
PAC01	Tire 11x4.00-5 8PLY Aero Classic TL	650	11,60	3,80	3.75	1,70	58
PAG01	Tire 4.00-4" 4PLY Kenda TL	-	11,90	3,90	2.20	1,00	25
PAG03	Tire 4.00-4" 8PLY Aero Classic TL	800	12,00	4,30	2.87	1,30	68
PAC03	Tire 13x5.00-6 4PLY DeliTire TT	-	13,40	4,70	2.87	1,30	41
PAC07	Tire 13x5.00-6 4PLY Sava TL	-	13,40	4,70	3.30	1,50	41
PAC04	Tire 13x5.00-6 8PLY Sava TL	-	13,40	4,70	3.30	1,50	41
505T08-1	Tire 5.00-5 10PLY Flight Eagle LT GoodYear TL	2150	13,80	4,70	7.05	3,20	236
070-310-0	Tire 5.00-5 8PLY Michelin Air TL	1800	14,20	4,70	5.73	2,60	131
PAD01	Tire 4.00-6 6PLY Mitas TL	-	14,50	4,40	2.87	1,30	44
PAD03	Tire 4.00-6 6PLY Aero Classic TL	-	14,50	4,40	3.75	1,70	68
PAC08	Tire 15x6.00-6 10PLY Flight Custom II GoodYear TL	3200	14,50	5,30	9.70	4,40	368
PAC02	Tire 15x6.00-6 6PLY Sava TL	-	14,80	5,10	4.85	2,20	41
PAC05	Tire 15x6.00-6 6PLY Air Trac TT	1950	15,00	5,30	6.17	2,80	125
PAB01	Tire 380x150-5 6PLY Michelin Air TT	1598	15,00	5,50	6.61	3,00	188
025-501-1	Tire 15x6.00-6 6PLY Michelin Air TL	1950	15,00	5,30	7.27	3,30	167
PAB03	Tire 6.00-6 4PLY AirTrac TT	1150	17,50	6,30	6.83	3,10	121
070-317-1	Tire 6.00-6 8PLY Michelin Air TL	2350	17,50	6,30	9.26	4,20	142
606T86-3	Tire 6.00-6 8PLY Flight Custom III GoodYear TL	2350	17,50	6,30	13.00	5,90	293
PAF03	Tire 21x8.00-6" 4PLY Aero Classic TL	800	20,50	7,10	10.80	4,90	125
076-325-0	Tire 8.50-6 6PLY Michelin TL	2275	21,00	7,50	15.43	7,00	303
PAF05	Tire 22x8.50-6" 4PLY Aero Classic TT	1600	22,00	8,10	8.82	4,00	236
PAF06	Tire 26" Alaskan Bush Tire (ULW)	660	26,40	10,00	14.33	6,90	1045
PAF07	Tire 29" Alaskan Bush Tire (ULW)	660	29,00	13,00	19.90	9.00	1255

Wheel size → ↓ Tire size	200x50	3.50-4	4.00-5	5.00-5	4.00-6	6.00-6"
200x50	ok	-	-	-	-	-
2.80/2.50-4"	-	ok	-	-	-	-
3.00-4"	-	ok	-	-	-	-
10x3.50-4"	-	ok	-	-	-	-
4.00-4"	-	ok	-	-	-	-
11x4.00-5"	-	-	ok	-	-	-
5.00-5"	-	-	*	ok	-	-
380x150-5" (15x6.00-5)	-	-	-	ok	-	-
13x5.00-6"	-	-	-	-	ok	-
4.00-6"	-	-	-	-	ok	-
15x6.00-6"	-	-	-	-	ok	ok
6.00-6" - 17.5x6.25-6	-	-	-	-	ok	ok
8.00-6"	-	-	-	-	-	ok
21x8.00-6"	-	-	-	-	-	ok
8.50-6"	-	-	-	-	-	ok
22x8.50-6"	-	-	-	-	-	ok
26" 29" 31" Bushwheel	-	-	-	-	-	ok



4.00-5"
 A : Outside diameter of tyre (inches)
 B : Tyre width (inches)
15x6.00-6"
 C : Inside diameter of tyre (inches)

1 Lbs ↔ 0.45 kg 1 inch ↔ 25.4mm
 1 kg ↔ 2.2 Lbs

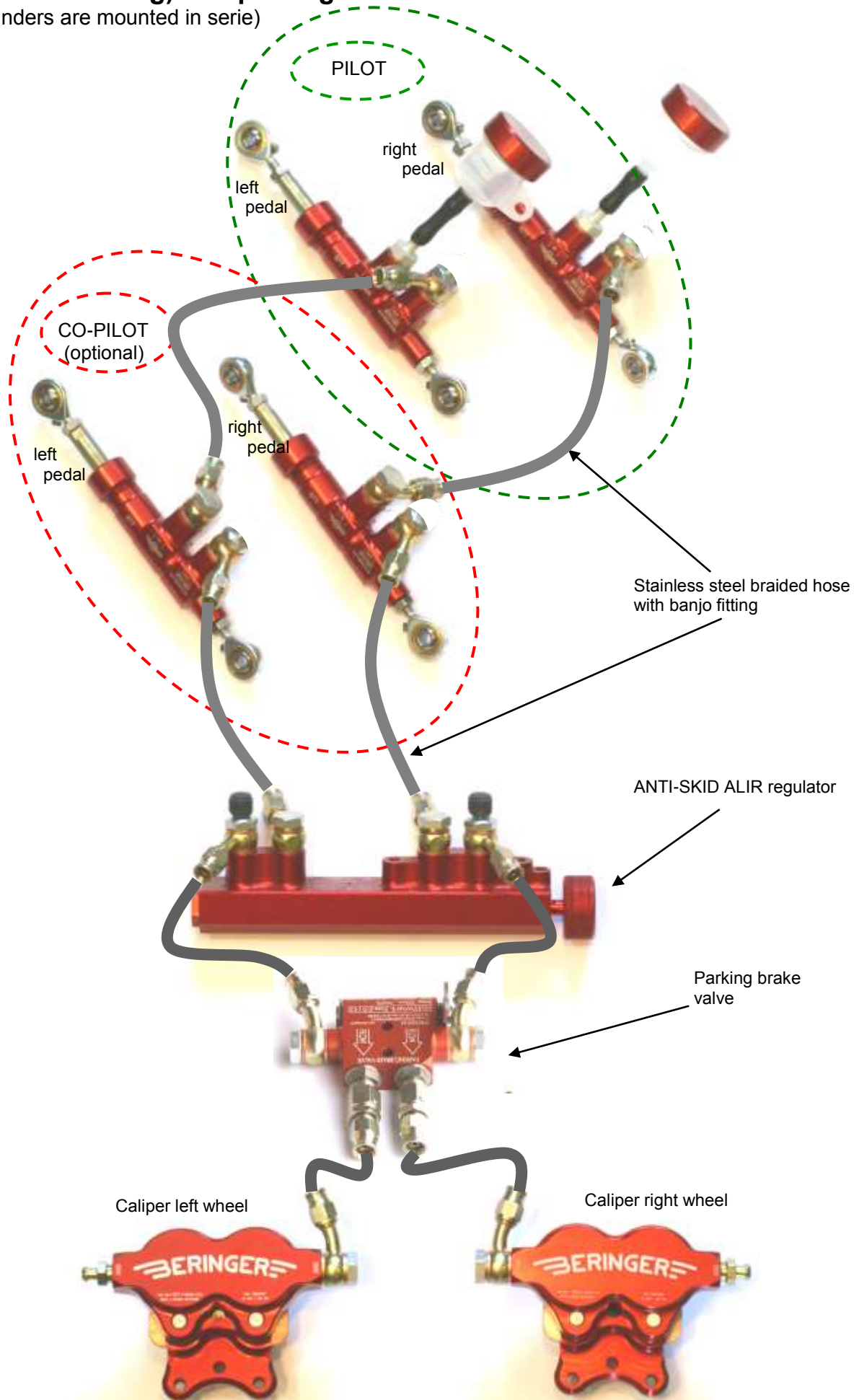
Notes: the dimensions and the weight of the tires may vary. BERINGER AERO cannot be responsible for the load indicated, which are those given by the tire manufacturers.

BERINGER wheels are tubeless. WE RECOMMEND FIRST MOUNTING OF TIRES ON WHEELS IN OUR PLANT. This service, free of charge, includes a pressure test, ensuring maximum security of the assembly.

Differential braking system schematic

Differential braking system with in-line balanced anti-lock regulator (ALIR anti-skid & in-line braking) and parking brake valve

(master cylinders are mounted in serie)



Brake master cylinders and attachments

These master cylinders have been designed for a very long life and assure very long trouble free service. We have tested them over 200,000 cycles with success. The piston is protected from dust by a lipseal.

- Available for DOT4 fluid **OR** for MINERAL (MIL FLUID) (seals are different, never mix)
- High quality aluminum alloy machined from solid on CNC
- 100% protected from corrosion: anodized coating and stainless steel components
- Light weight: more than 30% of weight saving compare to standard master cylinder
- Ultralow friction for improved efficiency



MP-001

All prices page 35

MP-001 Series - Bore 9/16" - Pin-to-pin length and attachments available

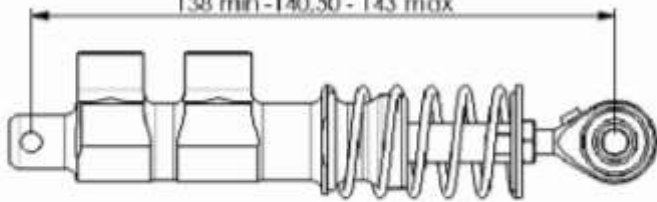
<p>COUPE B-B MCP-001</p> <p>[0.197] $\Phi 5$ [0.512] $\Phi 13$</p> <p>[0.197] $\Phi 5$</p>	<p>MP-001</p> <p>MCP-001(B)</p> <p>[7.437 min.] 189 min.</p> <p>[8.189 max.] 208 max.</p> <p>CHP-001(A)</p>	<p>COUPE A-A CHP-001</p> <p>[0.571] $\Phi 14.50$ [0.201] $\Phi 5.10$</p> <p>[0.315]</p>
<p>COUPE B-B PGT-001</p> <p>[0.197] $\Phi 5$ [0.512] $\Phi 13$</p> <p>[0.197] $\Phi 5$</p>	<p>MP-001.1</p> <p>PGT-001(A) MCP-001(B)</p> <p>[8.185 min.] 208 min.</p> <p>[8.937 max.] 227 max.</p> <p>CHP-001(A)</p>	<p>COUPE A-A CHP-001</p> <p>[0.571] $\Phi 14.50$ [0.201] $\Phi 5.10$</p> <p>[0.315]</p>
<p>COUPE B-B MCP-001</p> <p>[0.197] $\Phi 5$ [0.512] $\Phi 13$</p> <p>[0.197] $\Phi 5$</p>	<p>MP-001.2</p> <p>MCP-001(B)</p> <p>[7.437 min.] 189 min.</p> <p>[8.189 max.] 208 max.</p> <p>CHP-007(A)</p>	<p>COUPE A-A CHP-007</p> <p>[0.512] $\Phi 13$ [0.201] $\Phi 5.10$</p> <p>[0.268] 6.80</p>
<p>COUPE B-B MCP-001.1</p> <p>[0.197] $\Phi 5$ [0.512] $\Phi 13$</p> <p>[0.197] $\Phi 5$ [0.315] e</p>	<p>MP-001.3</p> <p>MCP-001.1(A)</p> <p>[7.437 min.] 189 min.</p> <p>[8.189 max.] 208 max.</p> <p>CHP-007(A)</p>	<p>COUPE A-A CHP-007</p> <p>[0.512] $\Phi 13$ [0.201] $\Phi 5.10$</p> <p>[0.268] 6.80</p>
<p>COUPE B-B MCP-001.2</p> <p>[0.240] $\Phi 6.10$ [0.512] $\Phi 13$</p> <p>[0.197] $\Phi 5$</p>	<p>MP-001.4</p> <p>MCP-001.2(A)</p> <p>[7.417 min.] 186 min.</p> <p>[8.189 max.] 208 max.</p> <p>CHP-009(A)</p>	<p>COUPE A-A CHP-009</p> <p>[0.374] $\Phi 9.50$ [0.240] $\Phi 5.10$</p> <p>[0.256] 6.30</p>
<p>COUPE B-B MCP-001.3</p> <p>[0.240] $\Phi 6.10$ [0.512] $\Phi 13$</p> <p>[0.315] e</p>	<p>MP-001.5</p> <p>MCP-001.3(A)</p> <p>[6.905 min.] 175 min.</p> <p>[7.854 max.] 200 max.</p> <p>CHP-010(A)</p>	<p>COUPE A-A CHP-010</p> <p>[0.512] $\Phi 13$ [0.240] $\Phi 5.10$</p> <p>[0.256] 6.30</p>

Brake master cylinders and attachments

MP-002 Series - Bore 1/2" - Pin-to-pin length and attachments available

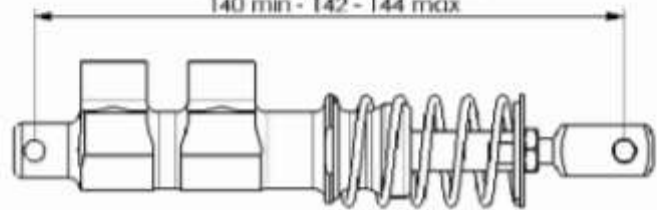
MP-002.1

5.43" min - 5.53" - 5.63" max
138 min - 140.50 - 143 max



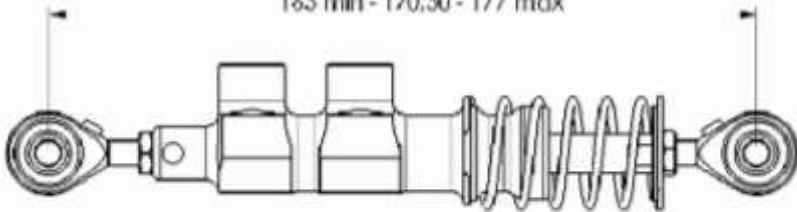
MP-002.2 et MP-002.8

5.51" min - 5.59" - 5.67" max
140 min - 142 - 144 max



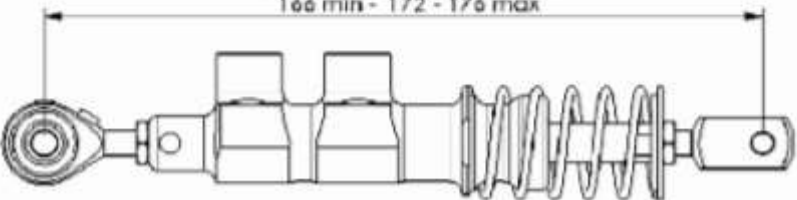
MP-002.5

6.50" min - 6.71" - 6.97" max
165 min - 170.50 - 177 max



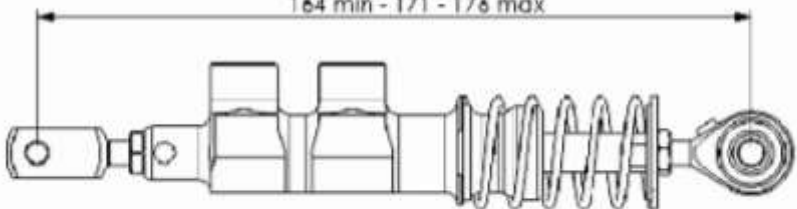
MP-002.6

6.54" min - 6.77" - 6.93" max
166 min - 172 - 176 max



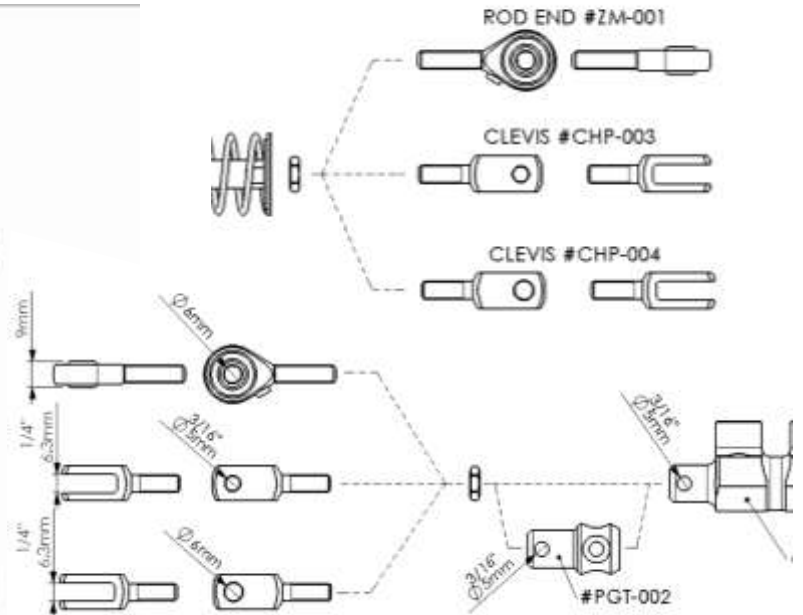
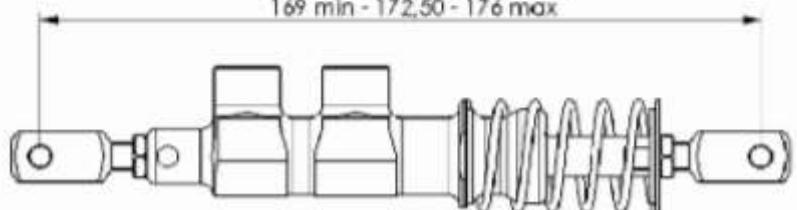
MP-002.3

6.46" min - 6.73" - 6.93" max
164 min - 171 - 176 max



MP-002.4

6.65" min - 6.79" - 6.93" max
169 min - 172.50 - 176 max



MP-002



MP-002
+CHP-003



MP-002
+CHP-003
+ZM-001



MP-002
+ 2xZM-001



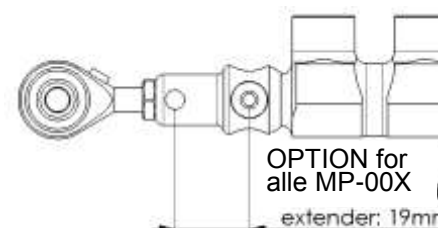
All prices page 35

Extender PGT-002 can bring all brake master cylinders to a longer pin-to-pin distance.

E-HN-002

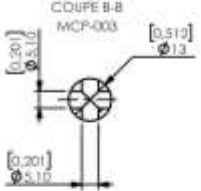
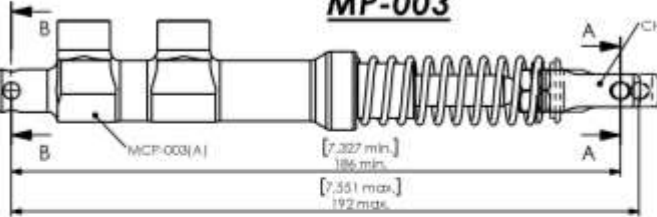
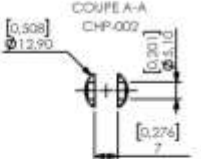
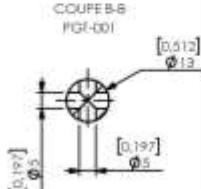
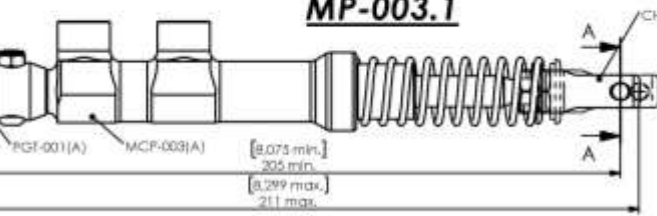
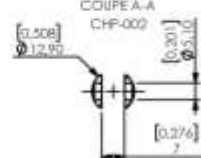
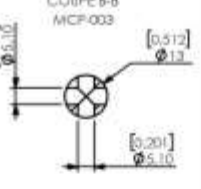
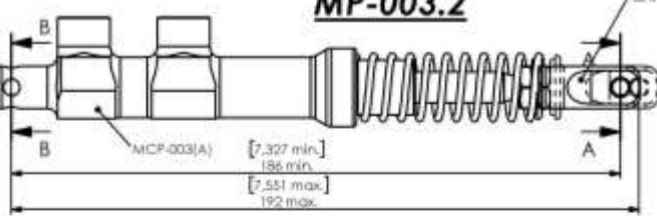
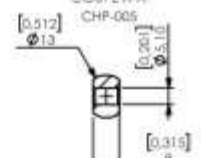
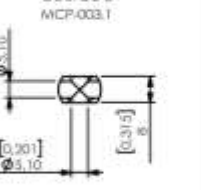
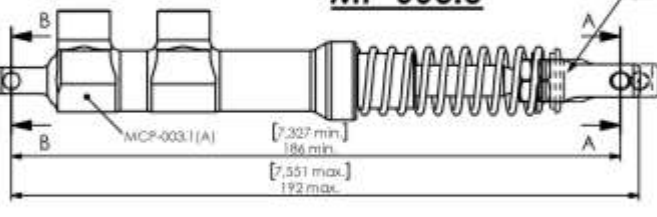
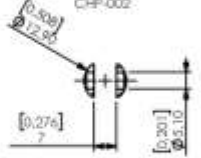
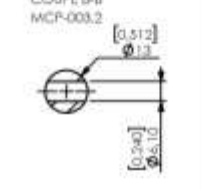
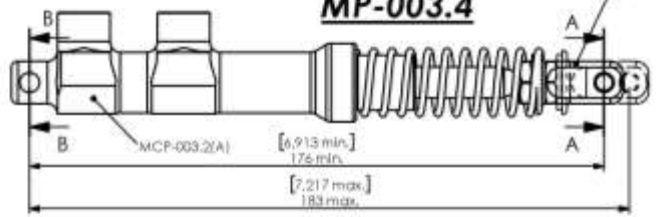
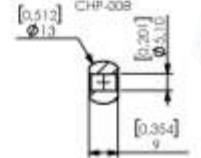
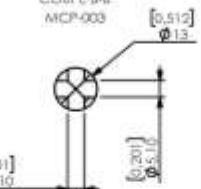
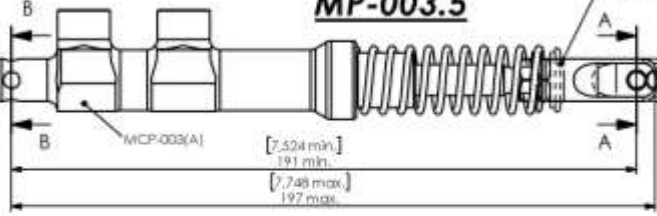
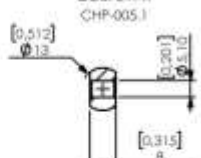
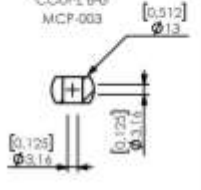
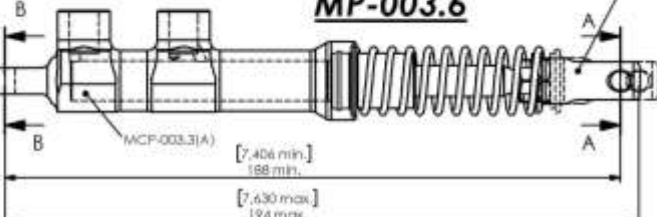
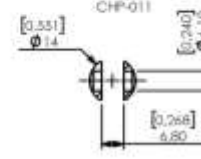
Extender PGT-002

V-BHC-003



Brake master cylinders and attachments

MP-003 Series - Bore 1/2" - Pin-to-pin length and attachments available

 <p>COUPE B-B MCP-003</p> <p>[0,201] Ø 5,10</p> <p>[0,512] Ø 13</p>	<p>MP-003</p>  <p>MCP-003(A)</p> <p>[7,327 min.] 186 min.</p> <p>[7,551 max.] 192 max.</p> <p>CHP-002(A)</p>	 <p>COUPE A-A CHP-002</p> <p>[0,508] Ø 12,90</p> <p>[0,201] Ø 5,10</p> <p>[0,276] 7</p>
 <p>COUPE B-B FGF-001</p> <p>[0,197] Ø 5</p> <p>[0,512] Ø 13</p>	<p>MP-003.1</p>  <p>FGF-001(A)</p> <p>MCP-003(A)</p> <p>[8,075 min.] 205 min.</p> <p>[8,299 max.] 211 max.</p> <p>CHP-002(A)</p>	 <p>COUPE A-A CHP-002</p> <p>[0,508] Ø 12,90</p> <p>[0,201] Ø 5,10</p> <p>[0,276] 7</p>
 <p>COUPE B-B MCP-003</p> <p>[0,201] Ø 5,10</p> <p>[0,512] Ø 13</p>	<p>MP-003.2</p>  <p>MCP-003(A)</p> <p>[7,327 min.] 186 min.</p> <p>[7,551 max.] 192 max.</p> <p>CHP-005(A)</p>	 <p>COUPE A-A CHP-005</p> <p>[0,512] Ø 13</p> <p>[0,201] Ø 5,10</p> <p>[0,315] 8</p>
 <p>COUPE B-B MCP-003.1</p> <p>Ø 5,10</p> <p>[0,201] Ø 5,10</p> <p>[0,315] 8</p>	<p>MP-003.3</p>  <p>MCP-003.1(A)</p> <p>[7,327 min.] 186 min.</p> <p>[7,551 max.] 192 max.</p> <p>CHP-002(A)</p>	 <p>COUPE A-A CHP-002</p> <p>[0,508] Ø 12,90</p> <p>[0,201] Ø 5,10</p> <p>[0,276] 7</p>
 <p>COUPE B-B MCP-003.2</p> <p>[0,512] Ø 13</p> <p>[0,240] Ø 6,10</p>	<p>MP-003.4</p>  <p>MCP-003.2(A)</p> <p>[6,913 min.] 176 min.</p> <p>[7,217 max.] 183 max.</p> <p>CHP-008(A)</p>	 <p>COUPE A-A CHP-008</p> <p>[0,512] Ø 13</p> <p>[0,201] Ø 5,10</p> <p>[0,354] 9</p>
 <p>COUPE B-B MCP-003</p> <p>[0,512] Ø 13</p> <p>[0,201] Ø 5,10</p>	<p>MP-003.5</p>  <p>MCP-003(A)</p> <p>[7,524 min.] 191 min.</p> <p>[7,748 max.] 197 max.</p> <p>CHP-005.1(A)</p>	 <p>COUPE A-A CHP-005.1</p> <p>[0,512] Ø 13</p> <p>[0,201] Ø 5,10</p> <p>[0,315] 8</p>
 <p>COUPE B-B MCP-003</p> <p>[0,512] Ø 13</p> <p>[0,129] Ø 3,10</p> <p>[0,129] Ø 3,10</p>	<p>MP-003.6</p>  <p>MCP-003.3(A)</p> <p>[7,406 min.] 188 min.</p> <p>[7,630 max.] 194 max.</p> <p>CHP-011(A)</p>	 <p>COUPE A-A CHP-011</p> <p>[0,551] Ø 14</p> <p>[0,240] Ø 6,10</p> <p>[0,268] 6,80</p>



All prices
page 35

Lever master cylinders

Heel operated - SuperCub Type

For original Piper SuperCub and also BERINGER dual braking calipers.

AV-CUB-122 (left) Price = 585€

AV-CUB-123 (right) Price = 585€

For BERINGER single caliper:

AV-CUB-120 (left) Price = 585€

AV-CUB-121 (right) Price = 585€

Two ball bearings for smooth actuation and good feeling

NEW



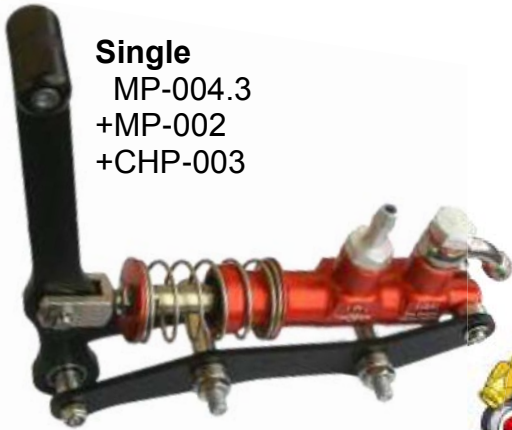
Hand operated

Single

MP-004.3

+MP-002

+CHP-003

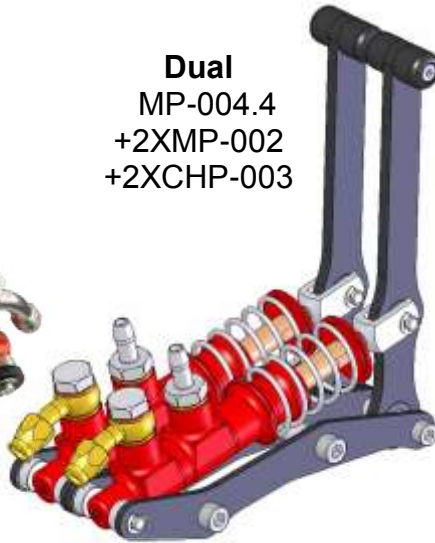


Dual

MP-004.4

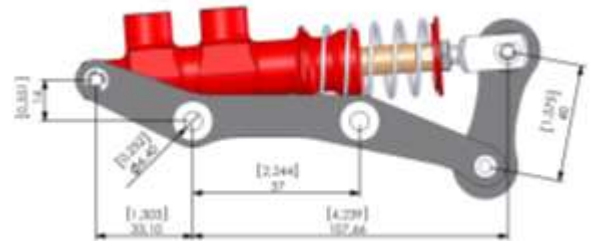
+2XMP-002

+2XCHP-003



Short lever kit - to be pushed

MP-004.7 +MP-002+CHP-003



Single lever kit with parking brake

MP-004.6

+MP-002

+CHP-003

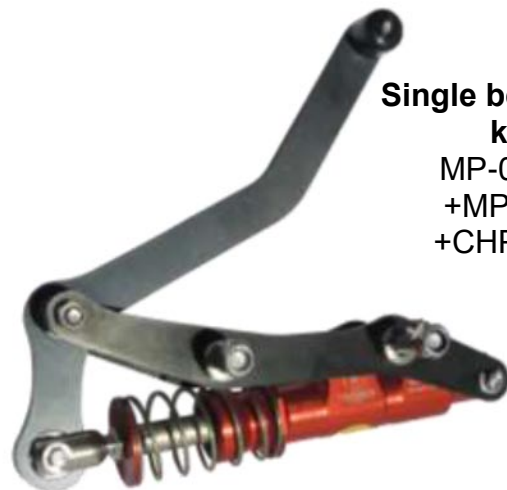


Single bent lever kit

MP-004.5

+MP-002

+CHP-003



NEUHEIT

All prices page 35

Cable operated

Single

MP-004.1 +MP-002

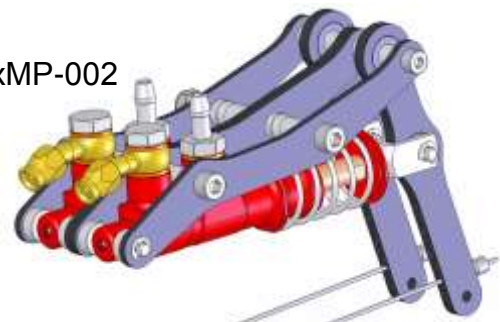
+CHP-003



Dual

MP-004.2 +2xMP-002

+2xCHP-003



Brake master cylinders and attachments

CAUTION:

The seals inside the brake master cylinders are specific for each type of brake fluid.

- It is not possible to put DOT4 brake fluid in a master cylinder with seals for MINERAL (MIL) fluid and it is not possible to put MINERAL brake fluid in a master cylinder with seals for DOT4 brake fluid.
- The letter **E** means for DOT4 brake fluid
- The letter **N** means for MINERAL (MIL) brake fluid

MP-002E



MP-002N

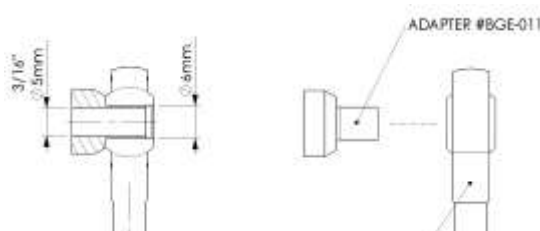


Brake master cylinder P/N	Attachments	Brake fluid	Pin-to-pin length				Bore		Weight		Price
			Min		Max		Inch	mm	oz	g	
			Inch	mm	Inch	mm					
MP-001	- CHP-001	DOT4 o. MIL	7,441	189	8,189	208	3/16	14,5	5,89	167	189
MP-001.1	CHP-001 - PGT-001	DOT4 o. MIL	8,189	208	8,937	227	3/16	14,5	6,38	181	218
MP-001.2	- CHP-007	DOT4 o. MIL	7,441	189	8,189	208	3/16	14,5	5,82	165	202
MP-001.3	- CHP-007	DOT4 o. MIL	7,441	189	8,189	208	3/16	14,5	5,78	164	202
MP-001.4	- CHP-009	DOT4 o. MIL	7,402	188	8,189	208	3/16	14,5	5,89	167	204
MP-001.5	- CHP-010	DOT4 o. MIL	6,890	175	7,874	200	3/16	14,5	5,18	147	236
MP-002	--	DOT4 o. MIL	-	-	-	-	1/2	12,2	3,53	100	150
MP-002.1	- ZM-001	DOT4 o. MIL	5,433	138	5,630	143	1/2	12,2	4,15	118	165
MP-002.2	- CHP-003	DOT4 o. MIL	5,512	140	5,669	144	1/2	12,2	3,96	112	163
MP-002.3	CHP-003 - ZM-001	DOT4 o. MIL	6,457	164	6,929	176	1/2	12,2	4,81	136	177
MP-002.4	CHP-003 - CHP-003	DOT4 o. MIL	6,654	169	6,929	176	1/2	12,2	4,62	131	175
MP-002.5	ZM-001 - ZM-001	DOT4 o. MIL	6,496	165	6,969	177	1/2	12,2	5,00	142	180
MP-002.6	PGT-002+ZM-001 - ZM-001	DOT4 o. MIL	6,535	166	6,929	176	1/2	12,2	4,81	136	194
MP-002.7	- CHP-006	DOT4 o. MIL	5,118	130	5,433	138	1/2	12,2	3,72	105	197
MP-002.8	- CHP-003	DOT4 o. MIL	5,512	140	5,669	144	1/2	12,2	3,76	107	163
MP-003	- CHP-002	DOT4 o. MIL	7,32	186	7,56	192	1/2	12,2	4,30	122	217
MP-003.1	- CHP-002	DOT4 o. MIL	8,07	205	8,31	211	1/2	12,2	4,80	136	217
MP-003.2	- CHP-005	DOT4 o. MIL	7,32	186	7,56	192	1/2	12,2	4,41	125	203
MP-003.3	- CHP-002	DOT4 o. MIL	7,32	186	7,56	192	1/2	12,2	4,27	121	203
MP-003.4	- CHP-008	DOT4 o. MIL	6,93	176	7,20	183	1/2	12,2	4,30	122	203
MP-003.5	- CHP-005.1	DOT4 o. MIL	7,52	191	7,76	197	1/2	12,2	4,44	126	215
MP-003.6	- CHP-011	DOT4 o. MIL	7,40	188	7,64	194	1/2	12,2	4,34	123	203

Lever kit for MP-XXX Brake master cylinder P/N (see page 34)	Brake master cylinder (not included)	Weight		Price
		oz	g	
MP-004.1	MP-002.3	8,77	249	53
MP-004.2	MP-002.3	16,06	455	102
MP-004.3	MP-002.8	9,30	264	64
MP-004.4	MP-002.8	17,11	485	118
MP-004.5	MP-002.8	9,58	272	64
MP-004.6	MP-002.8	10,33	293	118
MP-004.7	MP-002.8	8,48	240	64

Attachment P/N	Weight		Price
	oz	g	
CHP-001	0,83	24	14.7
CHP-002	0,23	6	12.6
CHP-003	0,40	11	12.6
CHP-004	0,39	11	12.6
CHP-005	0,32	9	12.6
CHP-005.1	0,37	11	25
CHP-006	0,43	12	47
CHP-007	0,79	22	12.6
CHP-008	0,27	8	12.6
CHP-009	0,80	23	14.7
CHP-010	0,77	22	47
CHP-011	0,27	8	12.6
ZM-001	0,792	22	14.7
BGE-011	0,159	5	4.2

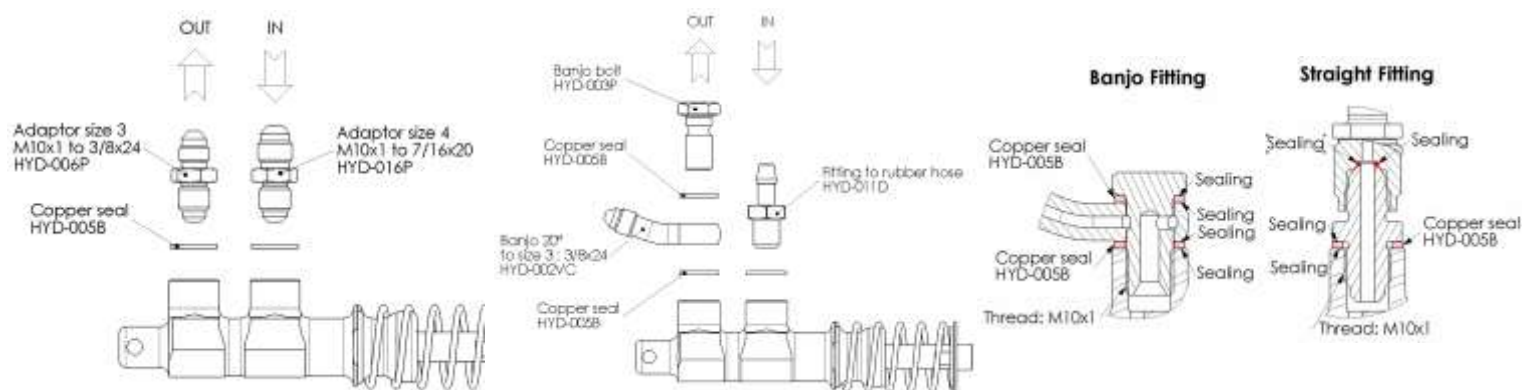
Adapter for rod ends:
our rod ends are only metric Ø6mm. For connexion with 3/16" bolts, please order the adapter P/N: BGE-011



1 bar ↔ 14.5 psi - 1 psi ↔ 0.069 bar

Hydraulic fittings for brake master cylinders

Only few examples of hydraulic fittings and adaptors are shown. Many other combinations are available. Please contact us.



Hydraulic hoses - fittings : to be screwed or assembled in plant

BERINGER Brake hose is stainless steel braided with PTFE inner tube and stainless steel fittings:

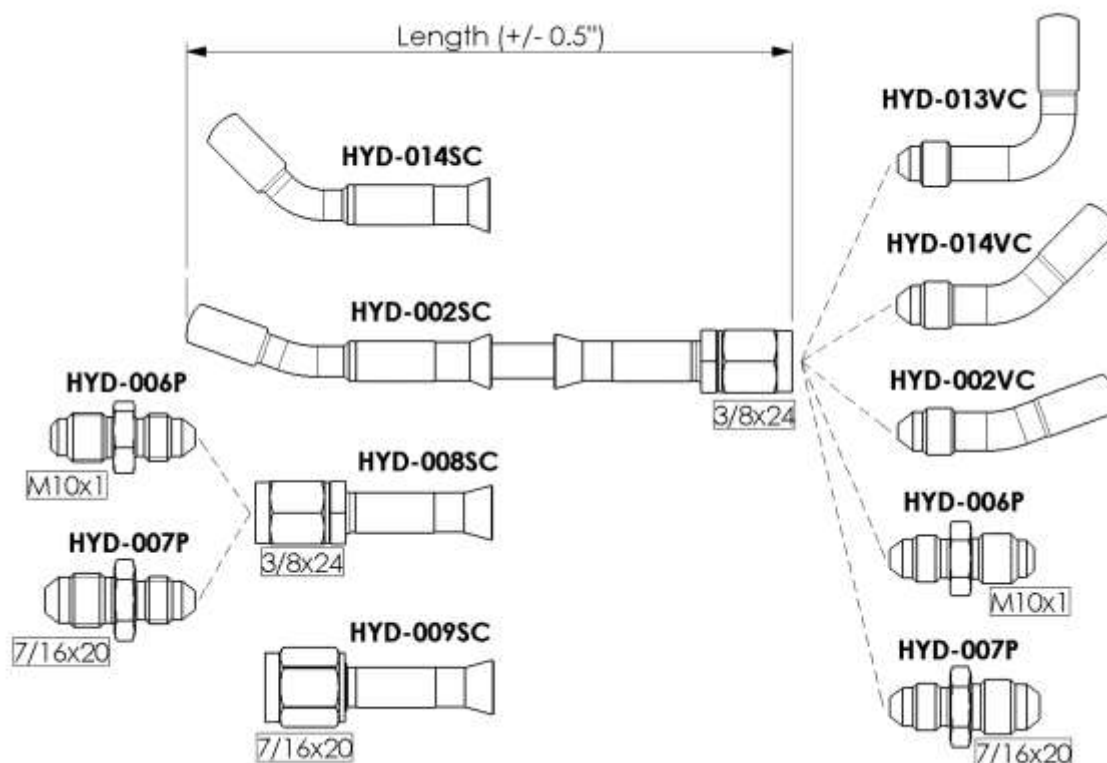
- Provides consistent brake pedal pressure without spongy feeling
- Flexibility allows landing gear leg movements and avoids leakage that appears with hardline tube.
- Ends can be straight fittings, female concave seat: 7/16x20 or 3/8x24 (steel plated or stainless)
- Maximum pressure 3000 PSI - strength pressure 9000PSI

Two types are available:

1- SCREW IT YOURSELF: You order brake hose and brake fittings separately and you follow the «assembly instructions» delivered with the parts.

2- WE ASSEMBLE THESE HOSES AND FITTINGS and WE DELIVER THEM READY TO INSTALL.

Choose your fittings, your length and order your brake hose assembly ready to use.



For hydraulic hoses and fittings, please contact us.

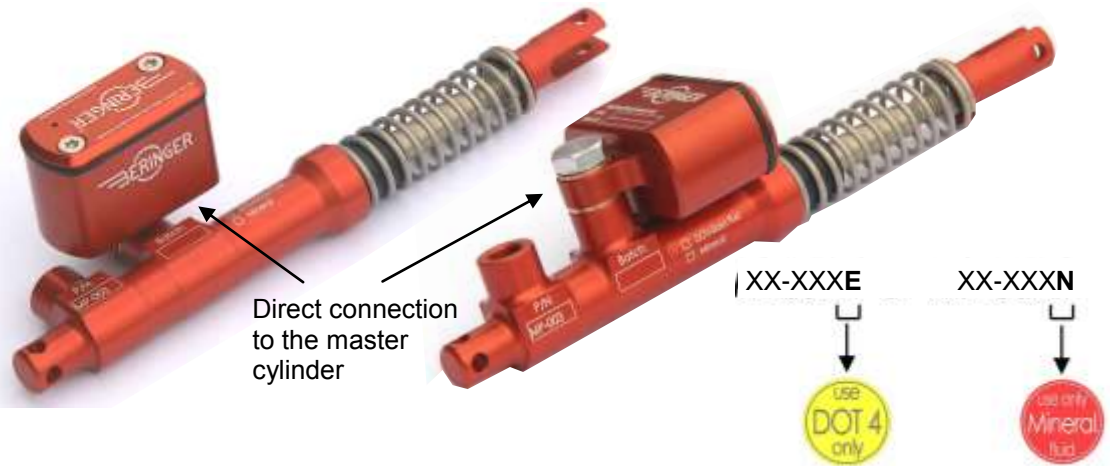
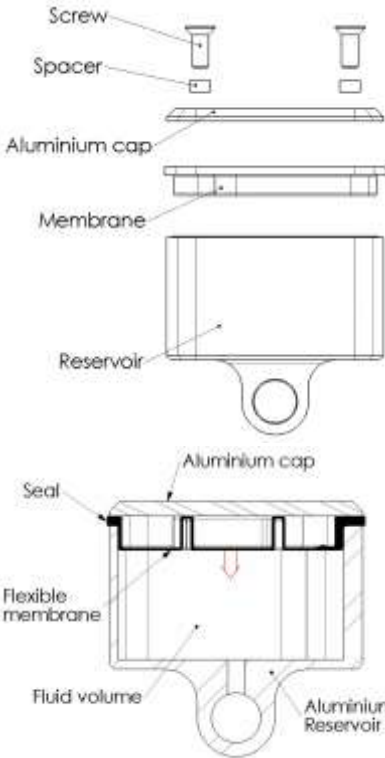
Brake fluid reservoirs

Each master cylinder requires a reservoir. We propose several types depending on your plane configuration. The reservoirs always incorporate tight bellows and are 100% tight, without any risk of leak. You must not install them close to the engine (install only inside the cockpit).

Integral Brake fluid reservoirs :

Vertical or horizontal mounting - available for DOT4 OR MINERAL brake fluid

- CNC machined from aluminium billet
- Attaches directly to the master cylinder, 180° rotatable
- Weight : from 55g (2 oz) to
- Perfect for aerobatic use

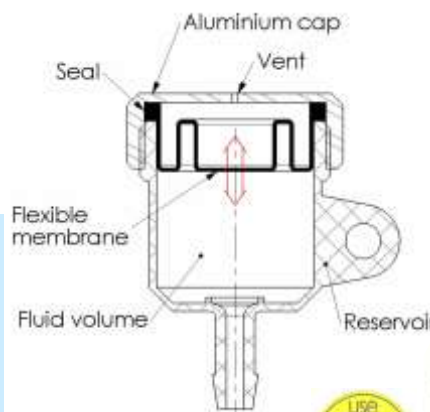


Remote brake fluid reservoir :

Transparent reservoir with CNC aluminium cover and visible fluid level and with mounting kit and 0.50m of EPDM tube. **Available for DOT4 brake fluid only.**

It is not possible to put DOT4 brake fluid in a master cylinder with seals for MINERAL (MIL) fluid and it is not possible to put MINERAL brake fluid in a master cylinder with seals for DOT4 brake fluid.

- The letter **E** means for DOT4 brake fluid
- The letter **N** means for MIL brake fluid

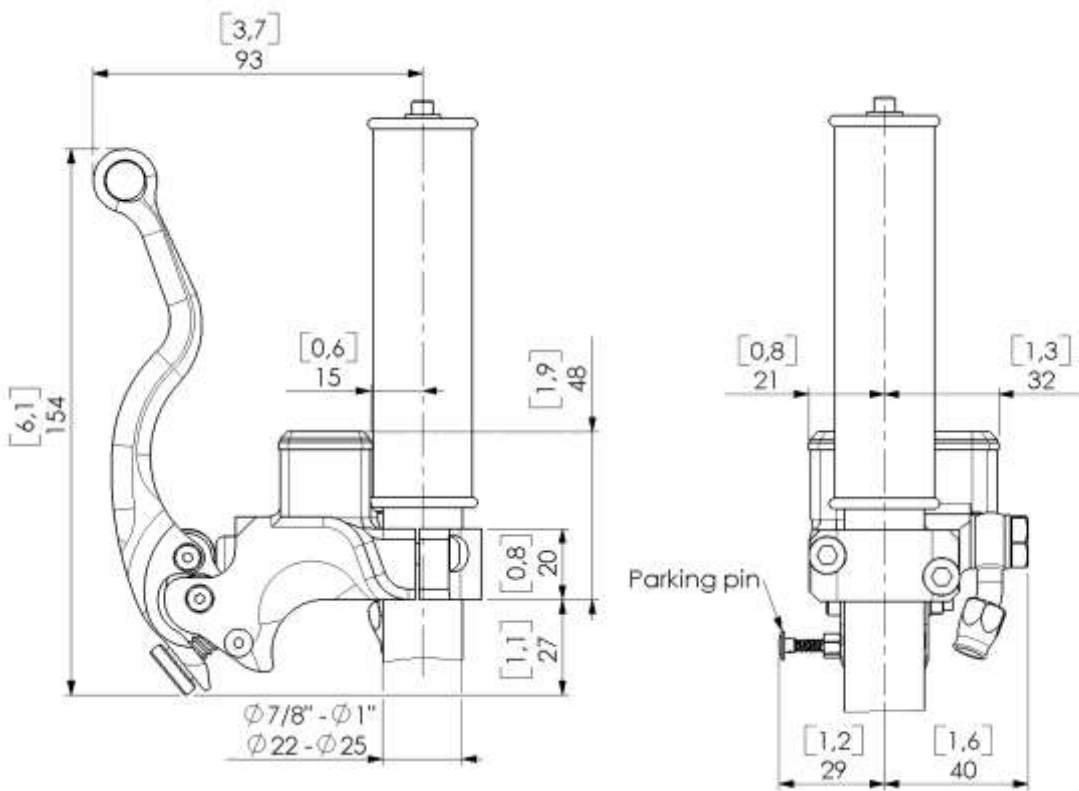


P/N	Brake fluid type	DESCRIPTION	Weight		Price
			oz	g	
HFA01	E	Remote reservoir kit	1.38	39	36
RV-001	E or N	Integral reservoir CNC machined	1.94	55	51
RV-003	E or N	Integral reservoir CNC machined (Van's for example)	1.59	45	51
RV-004	E or N	Integral reservoir CNC machined - threaded port	1.27	36	51
RV-004.1	E or N	Integral reservoir CNC machined - unthreaded port	1.27	36	51

Brake master cylinders for control stick

Hand brake master cylinder AEROTEC®

- Built-in reservoir
- Parking brake pin optional
- Three ball bearings for smooth operation, long life
- Covered with the AEROTEC® patent, it brings exceptional brake feeling
- Machined from billet on CNC
- To install on 22mm (7/8") or 25mm (1") axle or directly on flat surface with 2 screws



Brake master cylinder - cable operated

- Built-in reservoir, delivered with aluminum support
- Actuated with sleeved cable
- only available for DOT4



Brake master cylinder - hand operated

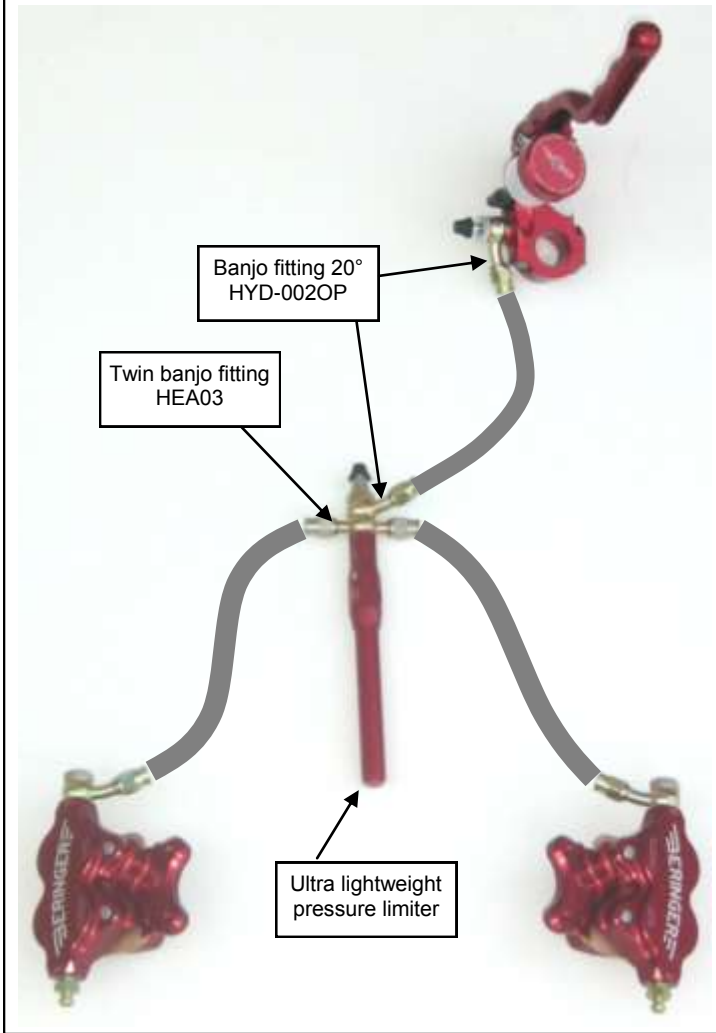
All in one: lever, master cylinder, sealed reservoir. To be mounted on $\Phi 22\text{mm}$ (0.866") axle or on support with two 6mm screws.



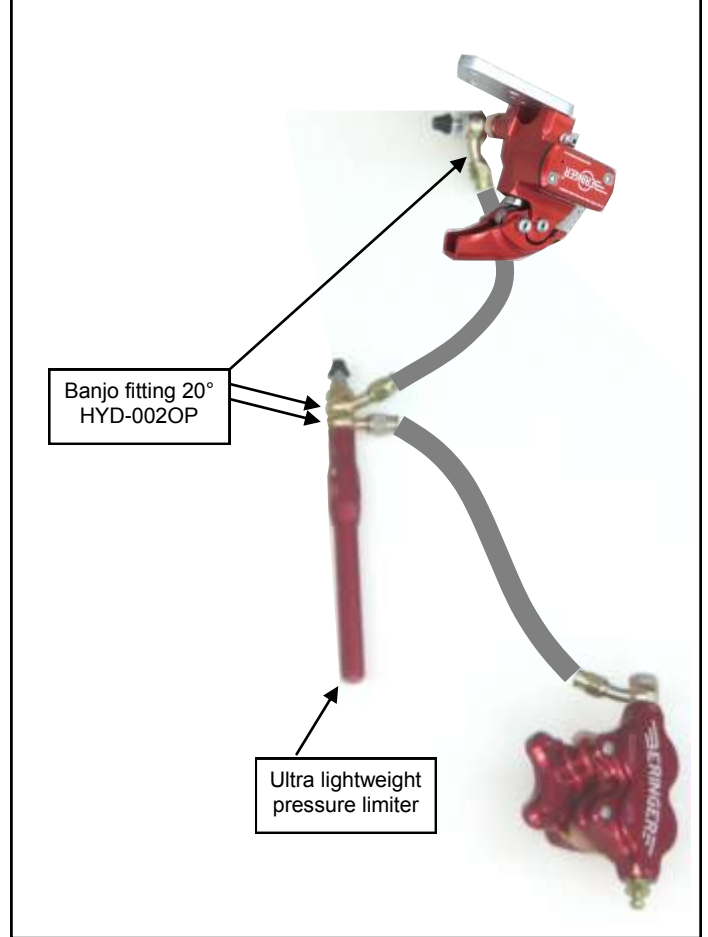
P/N	Description	Weight oz	g	Brake fluid	Price
HAB01	Built-in master cylinder	10.41	295	DOT4	256
HAB02	Built-in master cylinder with mechanical parking brake pin	10.41	295	DOT4	275
HAA03	Additional master cylinder to mount in serie (double braking control). To be used with primary HAB01 or HAB02	10.02	284	DOT4	275
HAC01	Master cylinder CABLE actuated with support	10.41	295	DOT4	256
HAB04	Master cylinder with built-in reservoir	10.41	295	DOT4	275
FP-004	Parking brake for HAB01 and HAA03	0,10	3	-	17

Brake schematics with hand master cylinder and ultralight pressure limiter

**Symmetrical braking on two wheels
(hand master cylinder + limiter)**



**Braking on one wheel
(master cylinder cable operated + limiter)
(glider)**



Ultralight pressure limiter

Ultralightweight PRESSURE LIMITER for symmetrical braking on two wheels or one wheel system

- Limits progressively the pressure in the braking system from 25, 35, 45 or 60bars
- Highly recommended to avoid over pressure and damage to the brake system
- Must be used with hand master cylinder
- Outlet M10x1
- CNC Machined from solid
- For DOT4 brake fluid OR MIL (on demand)
- Anodized for corrosion resistance

XX-XXXE

XX-XXXN



P/N	Description	Weight		Brake fluid	Price
		oz	g		
LM-001	Ultralight pressure limiter 20 bars	2,40	68	DOT4 or MIL	89
LM-002	Ultralight pressure limiter 25 bars	2,43	69	DOT4 or MIL	89
LM-003	Ultralight pressure limiter 35 bar s	2,47	70	DOT4 or MIL	89
LM-004	Ultralight pressure limiter 45 bars	2,50	71	DOT4 or MIL	89
LM-005	Ultralight pressure limiter 60 bars	2,54	72	DOT4 or MIL	89

"ALIR" anti-skid

Many accidents occurring on the ground are due to a bad control of the brakes. **Avoid all these risks with the BERINGER ALIR on your aircraft**

The BERINGER ALIR system improves the control of the brakes and helps the pilot to control the brakes.

This Anti-skid in Line Regulator allows the control of the direction on the ground with differential braking. It avoids wheel locking and risk of nose over when applying full effort on the braking pedals.

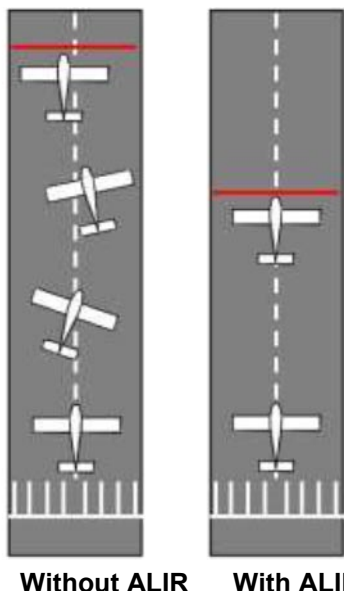
It reduces the stopping distance.

The BERINGER ALIR system is included in most wheel & brake kits.



**ALIR System
Anti Lock
In line
Regulator**

**A real advance
in terms of safety**



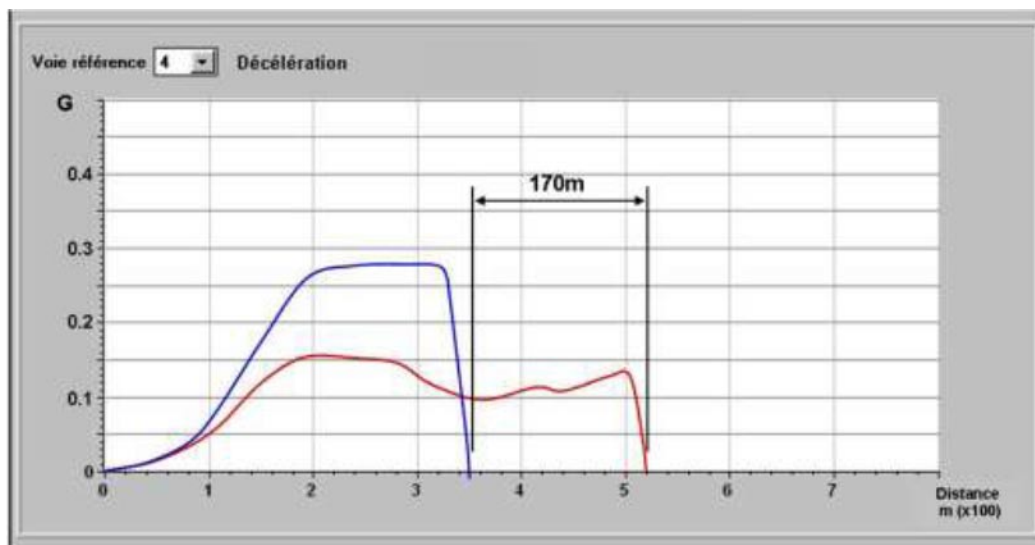
The ALIR system allows the control of the direction on the ground with differential braking.

The system can be installed on certain old aircraft.

EMERGENCY BRAKING : comparison:

- Blue curve: with ALIR: the pilot applies full braking without any control (similar to a car ABS)
- Red curve: without ALIR: no regulation, the pilot must control the braking (in both cases, conditions are the same: same plane, same brakes)

Weight of the aircraft: 1200 kg, braking speed: 70 Kt



Nota: BERINGER brake pads used in the ALIR system have a friction coefficient that increases with the temperature allowing an increase of the deceleration when the lift decreases on the wings.

Installs in-line; regulates in case of emergency overpressure

- Prevents nose over and improves safety
 - Low hysteresis
 - Adjustment range: 10 -40 bars (or 20-50 bars), with thumbwheel
 - Machined from solid on CNC
 - For DOT4 **OR** MINERAL (MIL) brake fluid
 - 2 inputs, 2 outputs (thread: M10x1)
- (See schematic page 30)

**ALIR PRESSURE
REGULATOR**
allowing a +/- 1
bar maximum refer-
ence pressure
and an equipres-
sure left-right .

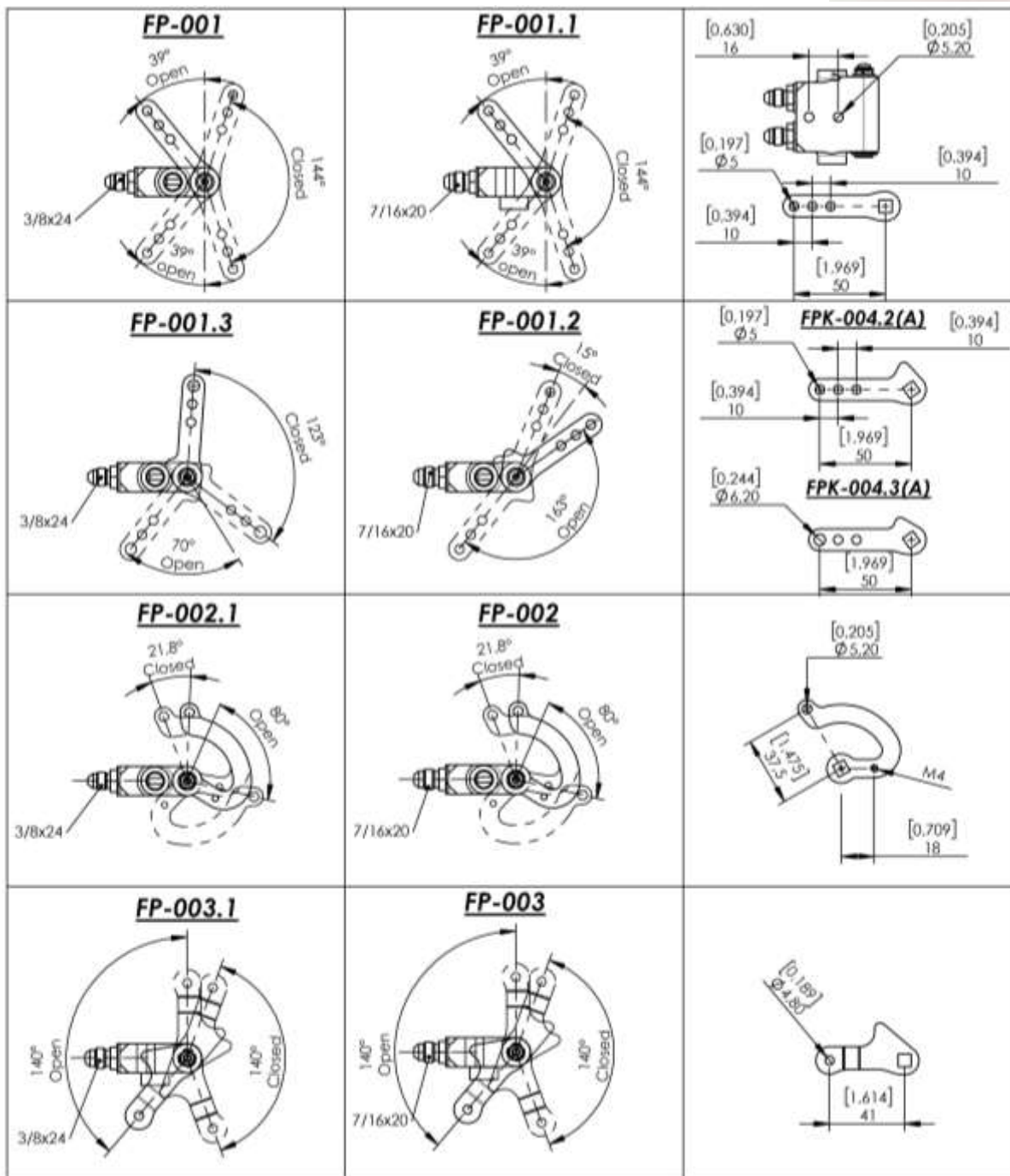


P/N	Description	Weight oz	g	Brake fluid	Price
RE-001E	In-line balanced anti-lock regulator 10 to 40 bars	11.64	330	DOT4	133
RE-001N	In-line balanced anti-lock regulator 20 to 50 bars	11.64	330	MIL	133

Parking brake valve

Available for DOT4 OR MINERAL (MIL) brake fluid

- Open/close quarter turn lever operated
- CNC machined from billet, red anodized
- Max. input pressure: 1500PSI (100 bars)
- Optimized for long life
- 100% protected from corrosion: anodized coating and stainless steel components



P/N	Weight oz	g	exit	Brake fluid	Price
FP-001	5,01	142	3/8" x 24	E or N	211
FP-001.1	5,13	145	7/16" x 20	E or N	211
FP-001.2	4,67	132	7/16" x 20	E or N	211
FP-001.3	4,53	128	3/8" x 24	E or N	211
FP-002	4,69	133	3/8" x 24	E or N	211
FP-002.1	4,69	133	7/16" x 20	E or N	211
FP-003	4,80	136	7/16" x 20	E or N	211
FP-003.1	4,80	136	3/8" x 24	E or N	211

XX-XXXE



XX-XXXN



Tools - Bleeder - Brake fluid

P/N	Description	Price	
OT-002	Tire changing tool for 5" wheels	88	
OT-001	Tire changing tool for 6" wheels	104	
OT-012	Tire changing tool for 8" wheel	396	
OHT01	Torquing tool for M25x1.5 nut	57	
OHT02	Metric tool kit	9.45	
ONA01	Spray lubricant Tire Up	27	
ONB01	Spray anti-puncture	22	
ONC01	Brake bleeder tank kit	79	
HJA01	High performance Brake fluid DOT4	0.33L	17.85
HJA02	High performance Brake fluid DOT5 Silicone base DOT5 cannot be mixed with DOT4.	0.33L	25
HJA03	High performance Mineral brake fluid MIL-PRF-87257	1 Gallon	51

BERINGER® tool for tire changing

Specific tire change tool for BERINGER® wheels with conical aluminum spacer: eases mounting of tire on wheel half.

- Plywood flanges steady tire while positioning second wheel half with the O-ring.
- Includes: Plywood flanges, bolts with butterfly nut and conical aluminum spacer



Brake fluids

- High performance DOT4 brake fluid with dry boiling point at 440°F minimum meets FMVSS 116/DOT4 specifications.

DOT4 is yellow colored and it is **not** compatible with brake system designed for mineral base fluids (see explanation page 6)

- Mineral brake fluid: HIGH PERFORMANCE following spec. MIL-PRF-87257



Brake bleeder tank

Necessary for an easy bleeding operation

helps the bleeding by sending the brake fluid under pressure in the line through the calipers. Delivered with manometer, hose and small bottle to collect the extra fluid.

Small bottle to collect the extra fluid



Bleeder tank

Tire lubricant

Spray of professional liquid soap.

Spray anti-puncture

To spray into the tire in case of puncture.

Spare parts:

For all spare parts, please contact us (O-Ring seal / valves / O-Ring valves / wheel clip / clip screw / wheel screw / brake discs / brake pads...)

We will send you the « spare part catalogue ».

**The certified parts are delivered with Form1
(10€ per P/N; 30€ flatrate over three P/N)**

BERINGER 2016 Ambassadors ...

Skip STEWART

Airshow Performer
Pitts Special

« The quest for Performance is to seek more power with less weight. BERINGER is the definition realized in an exquisitely beautiful package. »

Copyright Skip Stewart



Luca BERTOSSIO

Airshow performer
Jet Swift Segelflugzeug

« I use BERINGER because I fell in love with the feeling on the brake handle when I used it for the first time...BERINGER is just the best feeling, feedback and performances ! »

Copyright Luca Bertossio



Robby PEDERSEN

Just Aircraft Superstol
Winner of the LSA class
Short landing and take off
competition Valdez Mai 2016
with BERINGER Bremsen
and Alaskan Bush Tyre.

Copyright Roby Pedersen



Greenlight World flight

Matevz LENARCIC

Dynamic WT9 S

« With BERINGER I flew over all the continents, to the summits of Mt. Everest and Aconcagua, and to the North Pole. During my 28 days fast trip around the World, I did not even have any problem with BERINGER wheels. »

Copyright Matevz Lenarcic



BERINGER 2016 Ambassadors...

Nigel HOPKINS

Aerobatics, ZA
Extra 330

« I am blown away by the BERINGER brake system on my new Extra 330SC. Phenomenal braking performance and reduced overall weight of the aircraft. With no brake friction ground handling is easy both for taxi and pushing the aircraft and as a result brake wear is greatly reduced. »

Copyright Nigel Hopkins



Kirby CHAMBLISS, USA

Air show performer
MXS
Red Bull Air Race Pilot

Copyright Kirby Chambliss



Michael GOULIAN, USA

Air show performer
Red Bull Air Race Pilot
Edge 540

"I recently switched to BERINGER-brakes on my Red Bull Air Race Edge 540 and absolutely love them. The BERINGERsystem is much lighter than the legacy system on my plane but the stopping power makes all the difference in the world. I simply had to have the BERINGER brakes on my Extra 330 as well."

Copyright Mike Goulian



Nicolas IVANOFF

Edge 540
Air show Performer
Red Bull Air Race Pilot
The wheel and brake kit for Extra 330 was developed with the help of Nicolas.

Copyright Véronique Béringer



They have chosen BERINGER as original equipment...



They have chosen BERINGER as original equipment...

Cirrus

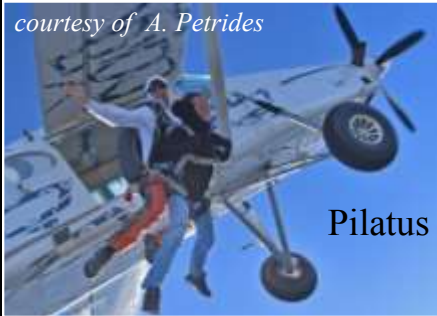


courtesy of Cirrus Aircraft



Courtesy of Cirrus Aircraft

courtesy of A. Petrides



Pilatus



Diamond



XtremeAir



Tecnam



Extra
Aircraft



Grob Aircraft



Aquila



Van's

courtesy of JM Urlacher

And many more ...

BERINGER AERO

Aéropôle, FR-05130 Tallard
Phone +33 (0) 4 92 20 16 19
Fax +33 (0) 4 92 52 69 66
sales@beringer-aero.com
contact@beringer-aero.com

BERINGER AERO Worldwide

Through the official **SERVICE CENTER** network

BERINGER AERO USA

400 Birnie Street - Suite E
Greenville, SC 29611
Phone (864) 214 4274
us.sales@beringer-aero-usa.com



www.beringer-aero.com