

RETTE- BENKER

C2
QUICK LIFT/BENCH

RETTEBENKER

C2
 QUICK LIFT / BENCH

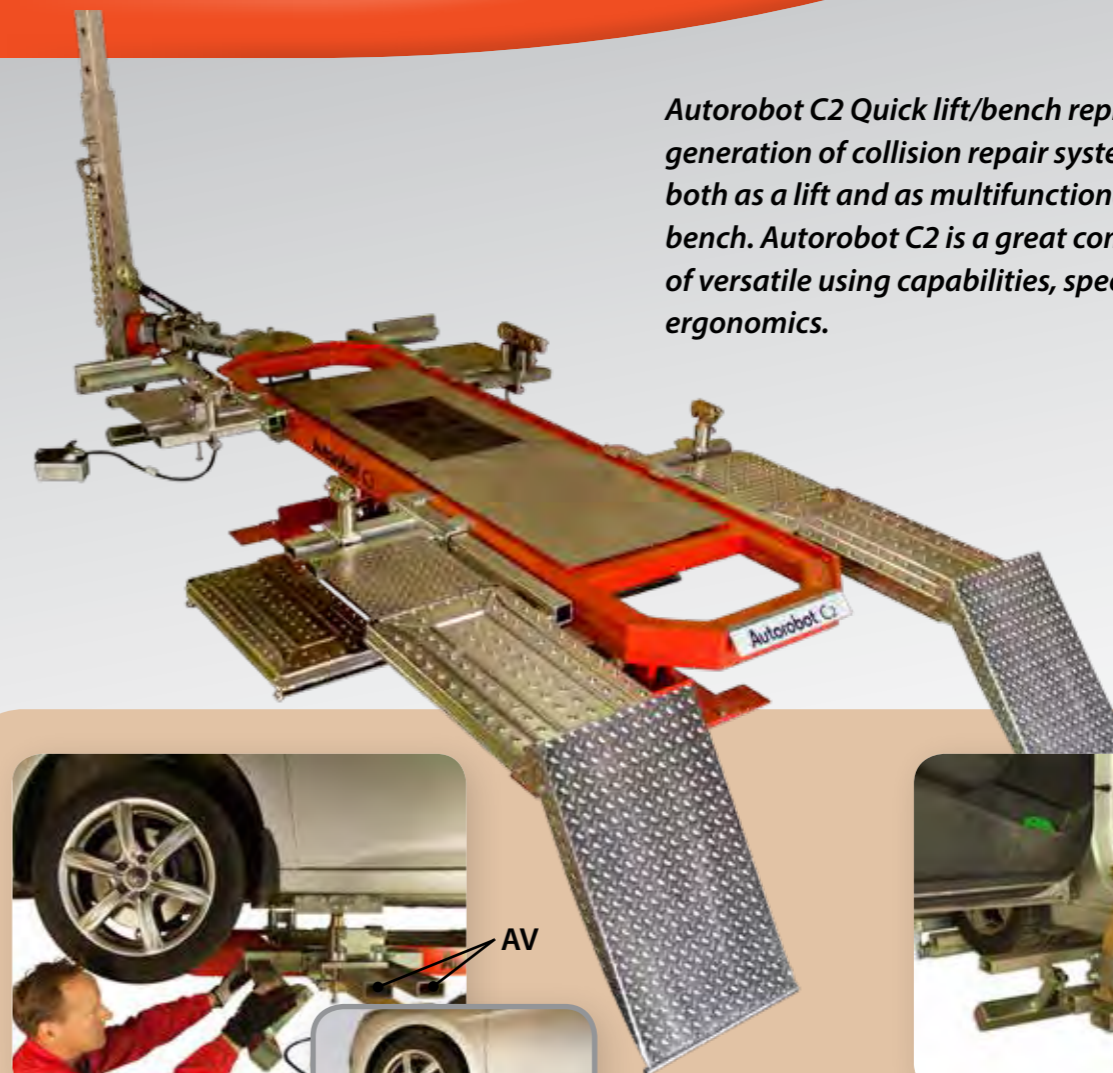
B 15
 SUPER LIFT/FRAME MACHINE

B20

XLS+
 MULTIFUNCTIONAL LIFT/STRAIGHTENING BENCH

B5
 MODULAR COLLISION REPAIR SYSTEM

MICRO B
 QUICK, ECONOMICAL STRAIGHTENING BENCH



Autorobot C2 Quick lift/bench represents a new generation of collision repair systems by working both as a lift and as multifunctional car body bench. Autorobot C2 is a great combination of versatile using capabilities, speed and work ergonomics.



Vehicle fastening is easy at the height of ideal 1,2 m. The work phases of the fastening have been minimized by using ready-to-use beams (AV).



The fastening from the upper part of the rocker panel is a quick new way to fasten the vehicle onto bench. The time saving is remarkable when dealing with vehicles without the pinch weld and with the ones that have pinch weld under plastic covers.

Autorobot® C2
 Multifunctional
 lift/car body bench

+ Technology from FINLAND

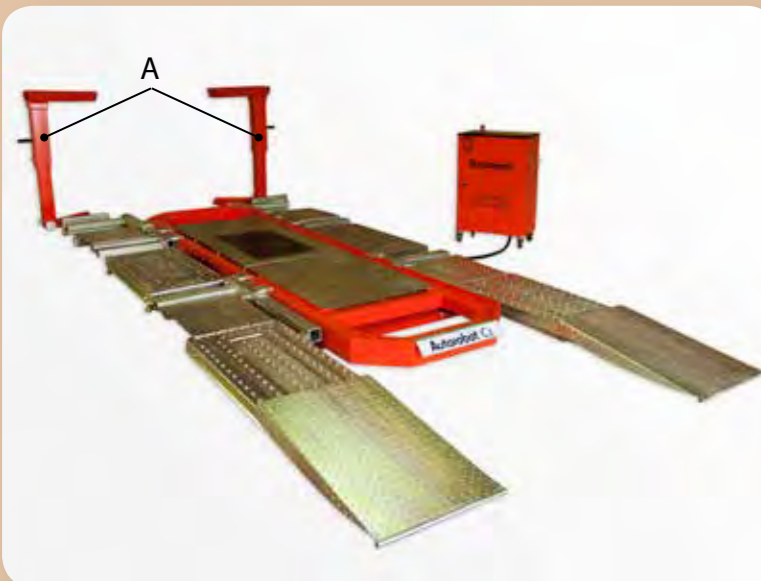
COLLISION REPAIR SYSTEMS

B15 Super

LIFT/FRAME MACHINE



Autorobot C2 is also a lift on which the vehicle measuring, disassembly, straightening, assembly after painting as well as various vehicle service jobs can be easily done.



Autorobot C2 is a modern technology product equipped with adjustable wheel stands (A). For hydraulic control you can choose either wire or wireless remote control.

Technical features	
Straightening table length	3400-4500 mm (11.5 -14.8 ft)
Straightening table width	1070 mm (3.5 ft)
Lifting height	140-1700 mm (0.45-5.5 ft)
Pulling force	10 t (22000 lb)
Pneumatic pressure range	8 bar
Post working range	360°
Max. lifting weight	2500 kg (5500 lb)
Gross weight	1400 kg (3100 lb)

Manufacturer:



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Autorobot® B15 Super

Forerunner in collision repair technology

+ Technology from FINLAND

COLLISION REPAIR SYSTEMS

B15 Super

LIFT/FRAME MACHINE

Super quick 10 t collision repair system that works also as 3 t lift

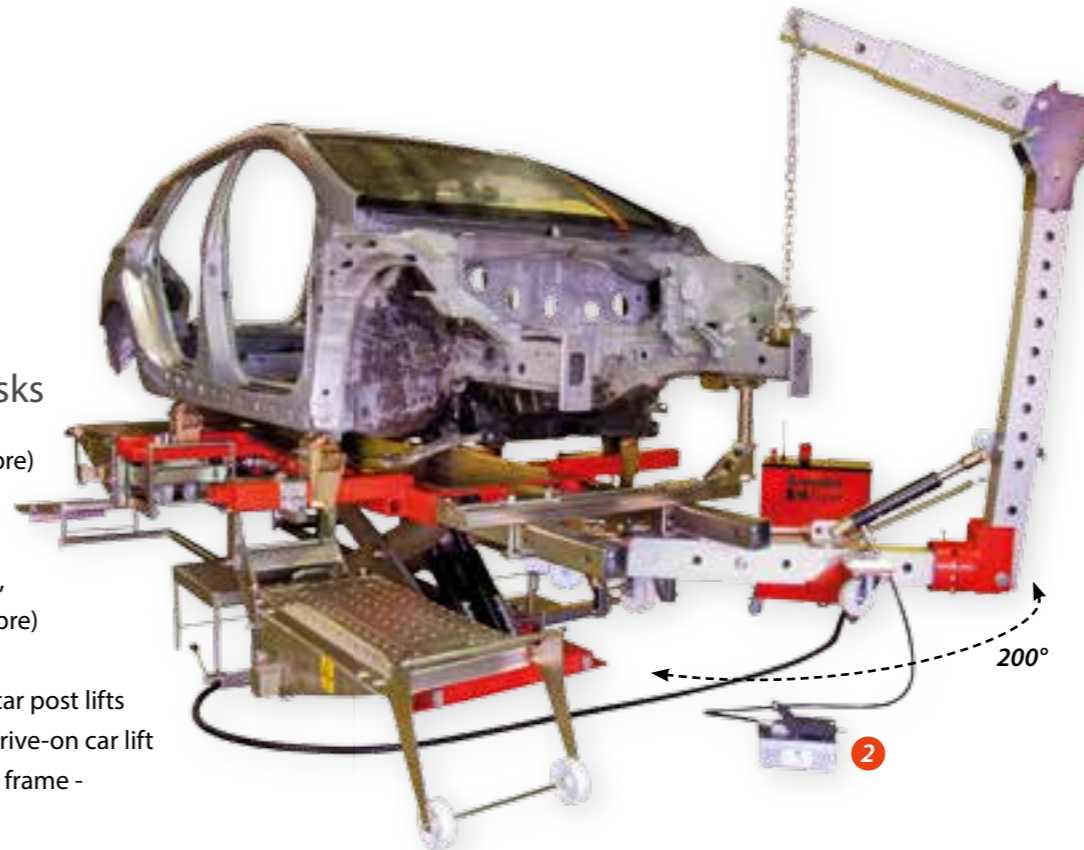
New Autorobot B15 Super is equipped with remote-controlled hydraulics that enables super quick vehicle fastening and lifting.

Technical features

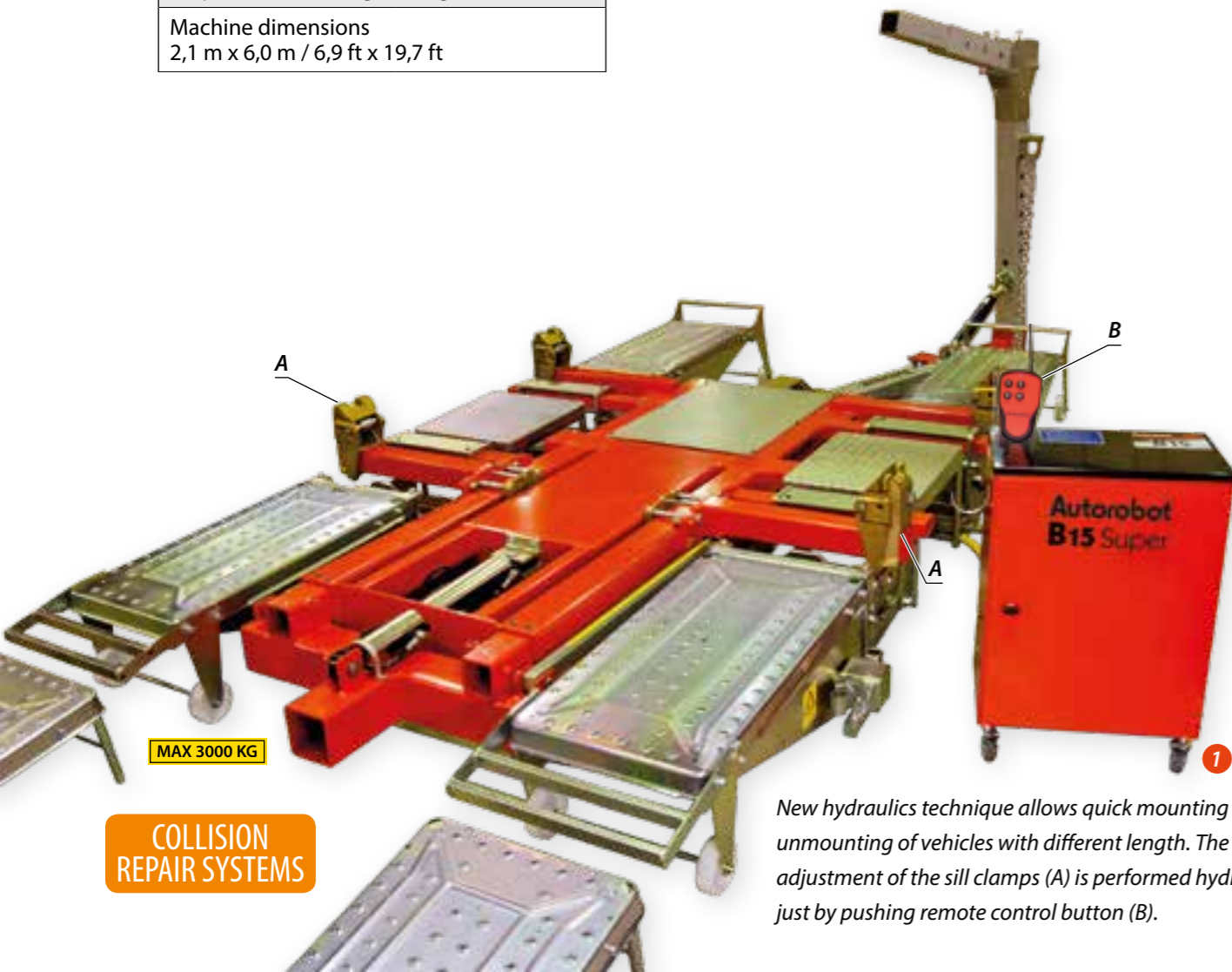
Lifting height	1.5m / 4.92ft
Lifting time	31s
Lift capacity	3000 kg / 6600 lb
Electric hydraulics	380 V
Remote-control (cable/wireless)	
Air pressure for straightening tower	
Machine dimensions 2,1 m x 6,0 m / 6,9 ft x 19,7 ft	

B15 has a major role in the following body shop work tasks

- Damage analysis (with Autorobot EzCalipre)
- Disassembling vehicle parts before straightening
- Straightening of small and large damage, 10 t power (assisted by Autorobot EzCalipre)
- Assembling work after painting
- Other standard repair jobs like with any car post lifts
- Lifting vehicles on wheels like with any drive-on car lift
- Lifting vehicles on lift pads under the car frame - leaves the wheels hanging free

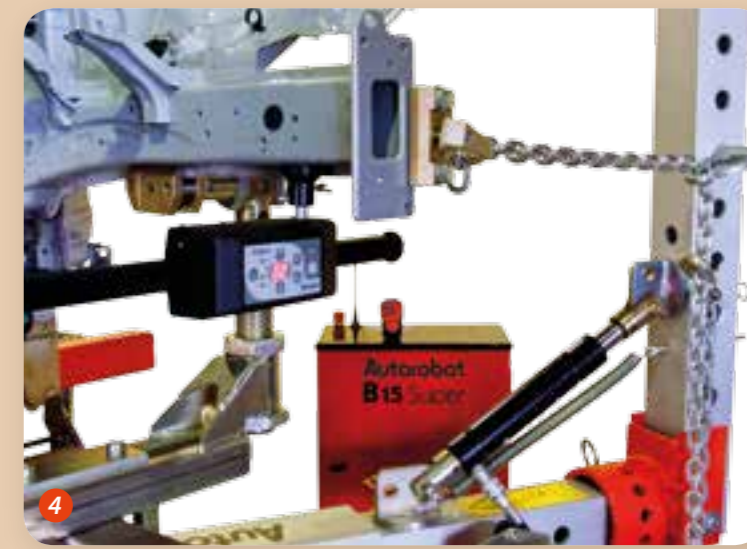


Straightening tower made of special aluminium enables straightening of the entire car body, which is unique. Changing of pulling angle is quick and easy.



New hydraulics technique allows quick mounting and unmounting of vehicles with different length. The length adjustment of the sill clamps (A) is performed hydraulically just by pushing remote control button (B).

COLLISION REPAIR SYSTEMS



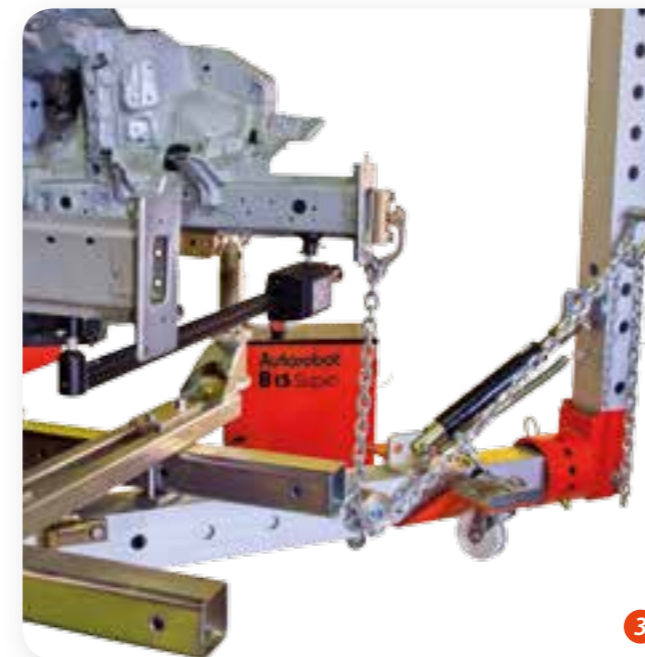
The required extent of the straightening is shown on the measuring system screen as well as on PC screen.



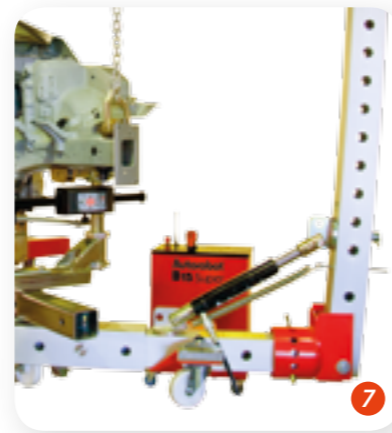
Use as a lift

When using Autorobot B15 Super, the saving in time is remarkable, as all jobs can be done on the same bench. B15 Super is equipped with versatile lifting features: lifting on wheels and on lift pads, leaving the wheels hanging free. This makes Autorobot B15 Super the most productive multipurpose bench for the body shop.

The versatility of B15 Super means better productivity for the body shop, when almost all jobs in the straightening process, except painting, can be done without moving the vehicle from one place to another and there is no need to get a separate lift.



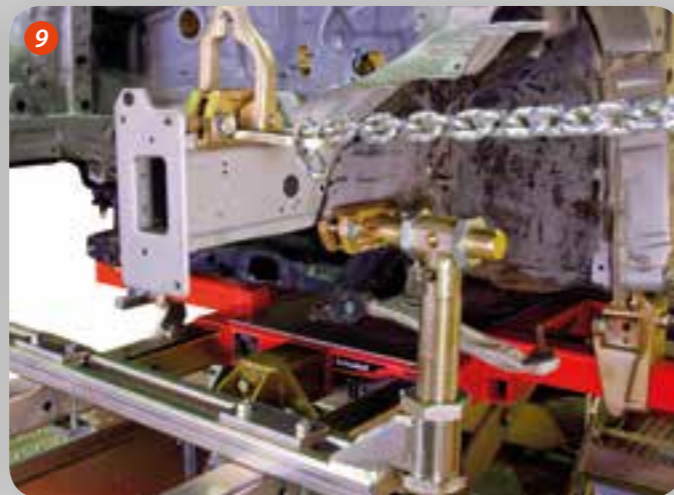
The information given by measuring system speeds up the collision repair work and tells how much the box section must be pulled downwards.



Autorobot B15 Super is equipped with electric hydraulics that is controlled from the remote-control panel (picture 6). Picture 7 shows the upward pull of the box section under the control of electronic measuring.



Autorobot B15 Super is perfect for various jobs in car body shop. Picture 8 shows the straightening of B-pillar under guidance of EzCalibre electronic measuring gauge.



Autorobot B15 Super allows efficient straightening also to modern high tensile steel box sections assisted by support system (accessory).



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**Technology
from FINLAND**

Autorobot® B20

Next generation straightening bench provides new techniques for today's high technology vehicles

Benefits of B20

◆ Quicker ◆ Smarter ◆ Stronger

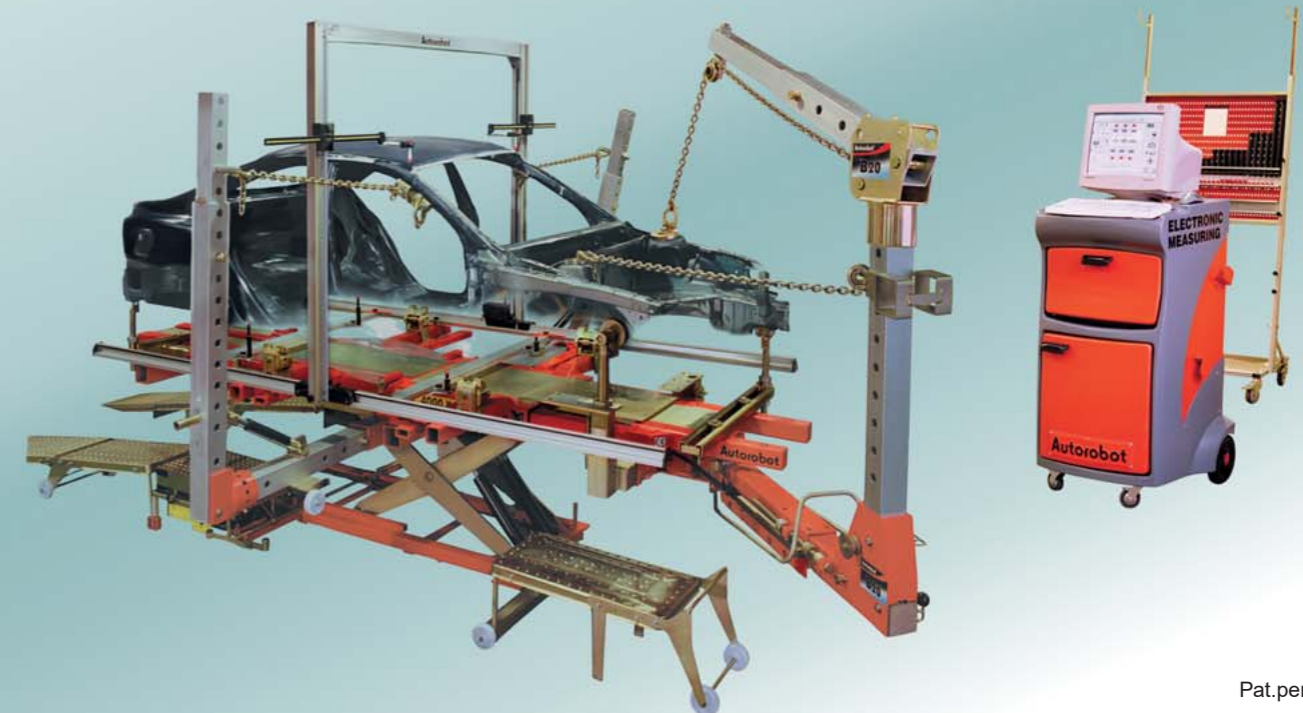
- ◆ Super fast vehicle mounting with patented chassis fasteners. Chassis fasteners can be moved hydraulically, following to the length of the vehicle
- ◆ New instant support fastening for small damage (for cars without pinch weld).
- ◆ Efficient, versatile working possibilities with the new generation pull tower (quick straightening with combination of hydraulic push/pull).
- ◆ Equal pull force of 10 ton up and down of the whole height of the pull tower. Handles reinforced structures easily.
- ◆ Hydraulically extending straightening bed (optimal length for short and long vehicles).
- ◆ High lift eases up straightening work (ideal height for all working phases).
- ◆ B20 sets are suitable for cars, vans and SUVs
- ◆ Mechanic or electronic 3D measuring system available for chassis and body.



The picture shows B20 Gold set and Starblock fasteners as well as chassis fasteners for Pick up and mechanical/electronic measuring



The picture shows B20 Gold set and Starblock fasteners as well as chassis fasteners for MB



The picture shows B20 Gold set and mechanical/electronic measuring system

Pat.pend.

Autorobot® B20

A new generation of straightening techniques makes pull and push faster than before. The B20's straightening power easily handles today's new metals and strong body structures. Counter support and double pulls available.

Autorobot B20 is a masterpiece from a development team with long experience in professional body repair. The B20 straightening bed works with a double action cylinder. This technique provides super fast vehicle mounting and it allows to adjust the bed length following to the actual vehicle length. With B20 the straightening work has been made more productive than before with the new pulling tower that also has a double action cylinder. This technique allows all pulls and pushes which become necessary in the straightening work, and also pull/push combinations. The combinations of pull and push help to guide/direct the straightening and support so that the pull force affects the damage area only.

The rear chassis fastening beams and the rear-end length of the straightening bed are adjusted hydraulically according to the vehicle length.

The straightening bench hydraulically extends lengthwise under the vehicle to put the mounting system in the proper position. These same hydraulics control the chassis support set, which ensures safe mounting of the vehicle during very powerful pulls.

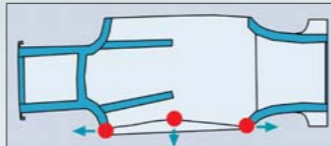
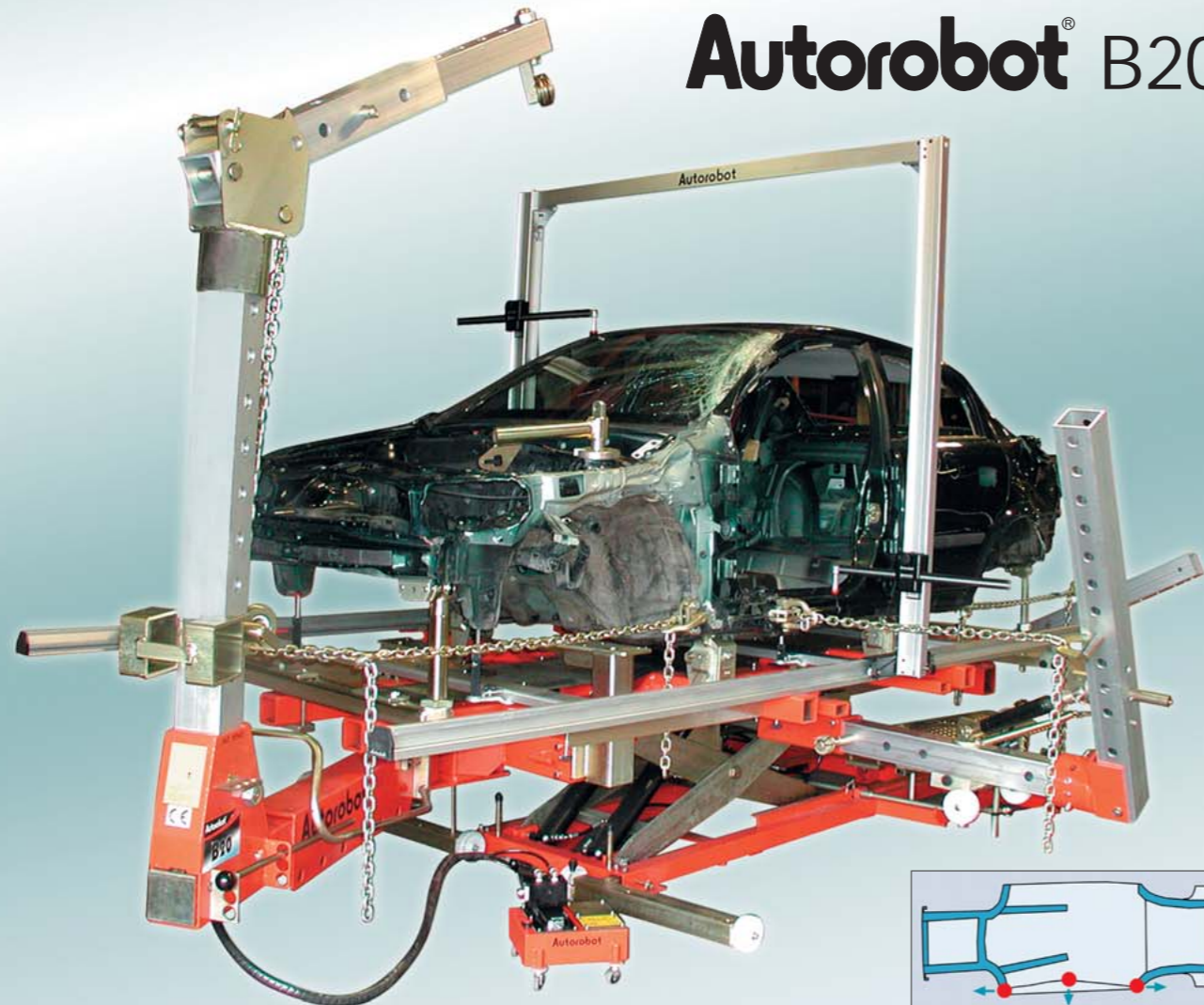
The drive-on ramps are equipped with wheels, making it easy to move them out of the way or to another bench.

The picture features B20 Silver set, Starblock fastening set, Audi fasteners, B20-4 chassis support set and 714A-1 double gripper.

- ◆ Lifting force 4 t / 8,800 lb
- ◆ Lifting height 1,6 m / 5.3 ft
- ◆ Maximum car length 6,5 m / 21 ft
- ◆ Quick fastening system minimizes mounting time for vehicles needing minor repairs

Pat. pend.

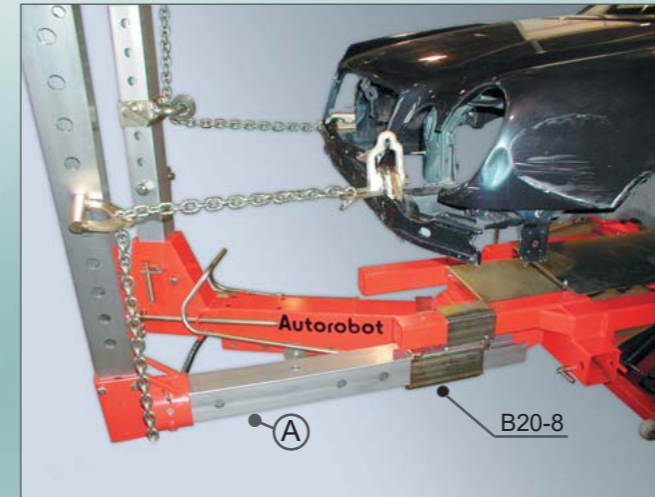
Autorobot® B20



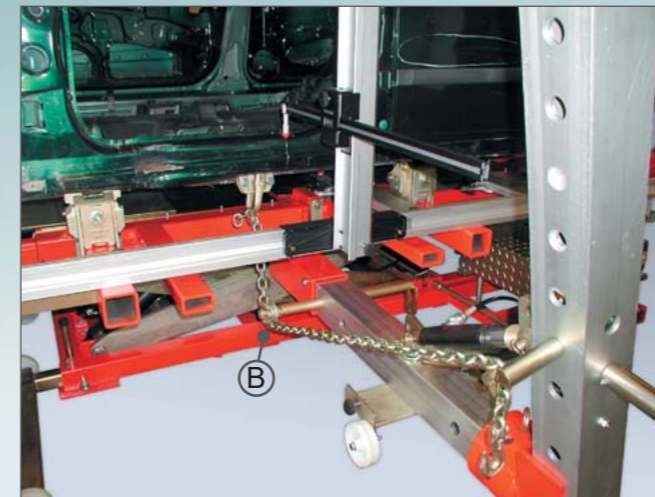
The straightening technique of the B20 can't be compared with anything else available on the market. The machine handles both the easy and the demanding tasks with a speed you haven't seen before. A few examples of this:

Change horizontal pulling angle for the pull/push tower	45° ~4 s 180° ~10 s
Assemble horizontal beam to straighten vehicle side structures, for example the B-pillar	~ 5 s
Move chain to upper wheel for an upward pull (bed in lowest position)	~ 20 s

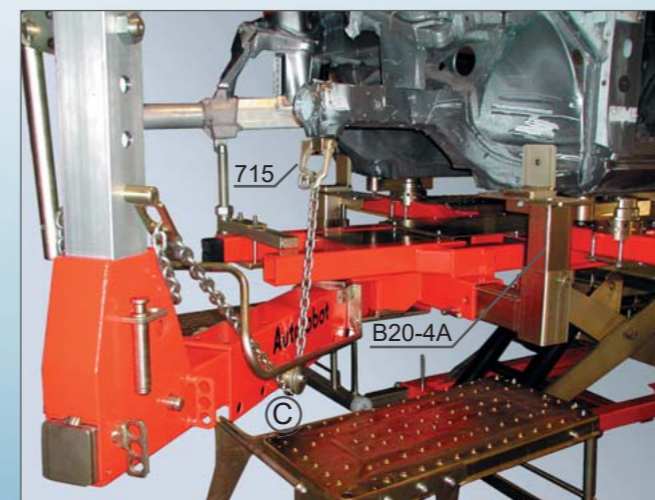
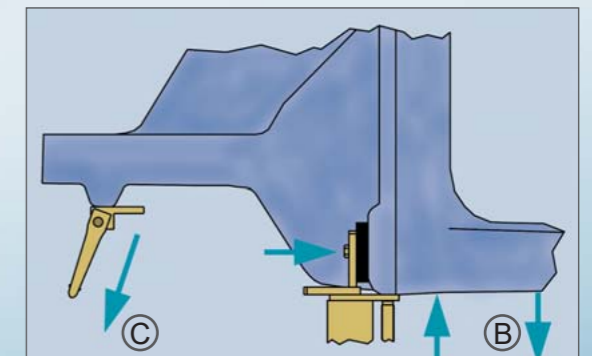
The support arm B assembled in the pull/push tower in the picture can for example provide support above the wheel suspension during the straightening work. The actual pulling of the front frame is done by using a pulling wheel in the beam C installed in the tower A.



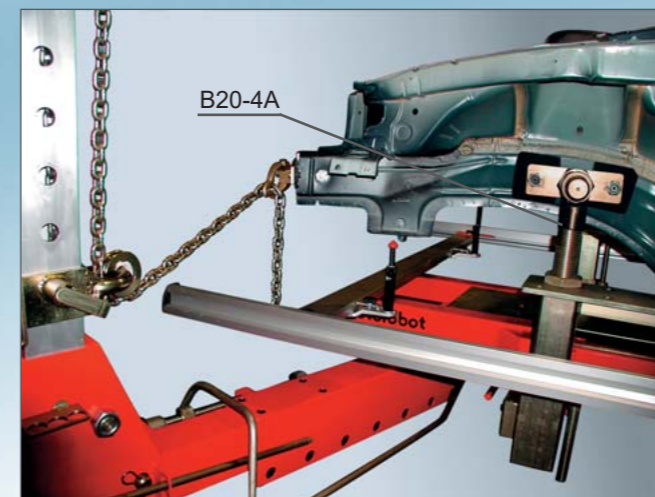
With the B20 Gold set a 2-point pull at the vehicle front or rear end can be effected by using the pull/push tower of the B20 together with the tower A installed in the straightening unit with the help of an adapter (No. B20-8). The tower A pull movement comes from the hydraulics of the straightening unit. Alternatively, it is possible to use an additional tower No. B20-6 instead of the tower A. The additional tower incorporates hydraulics.



Picture features a downwards pull of rocker panel by using a downward pulling wheel and an axle which can be moved in the car's lengthwise direction.



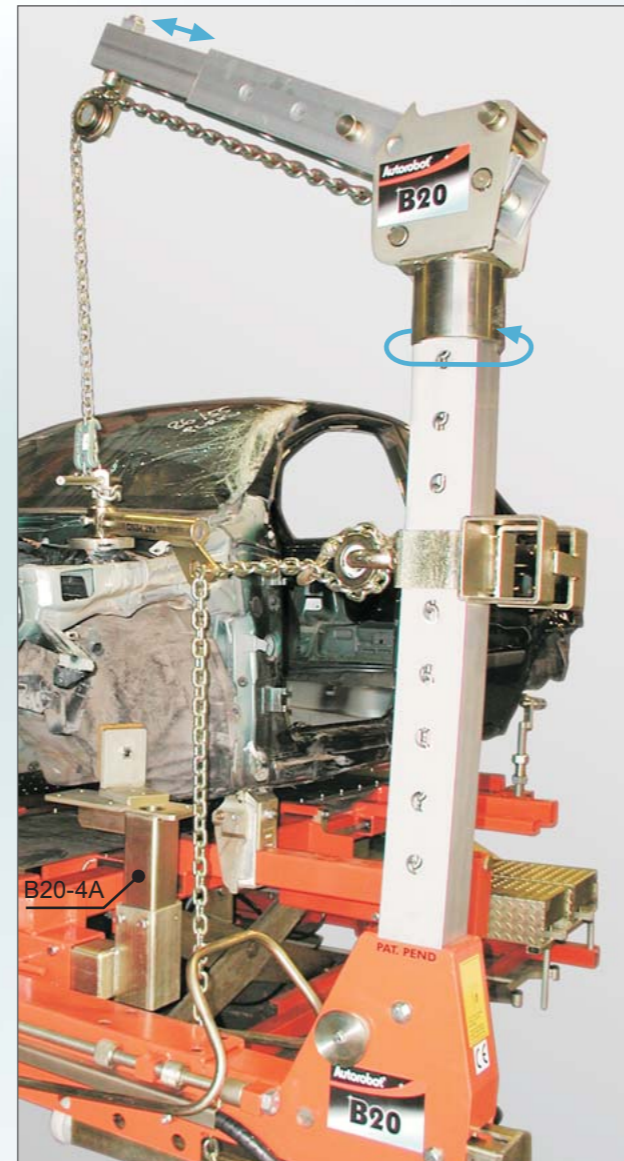
With the help of the straightening unit's (picture) hydraulics the support beam B20-4A has been moved to support target under the car's frame structure. Then the downwards pull is effected with the straightening fastener for multiple pulling angles N:o 715, which is installed to the car frame with a screw.



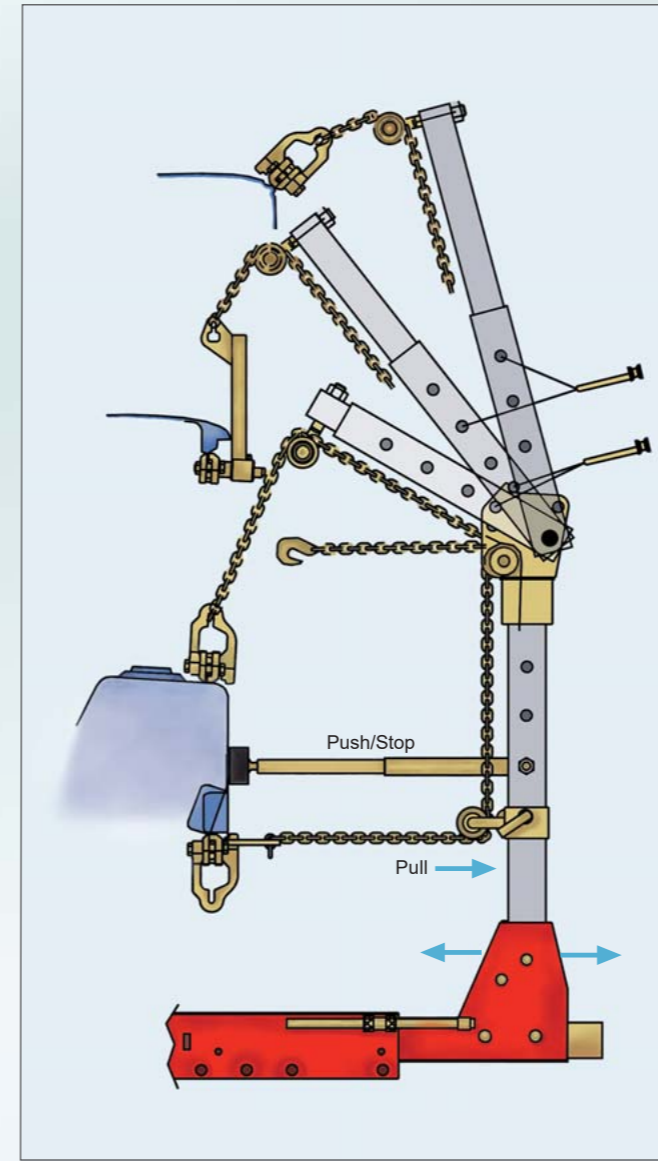
The straightening work gets easier when you use the chassis support (jig) set No. B20-4A and a mechanic or electronic measuring device, which shows how the straightening is progressing.

Autorobot® B20

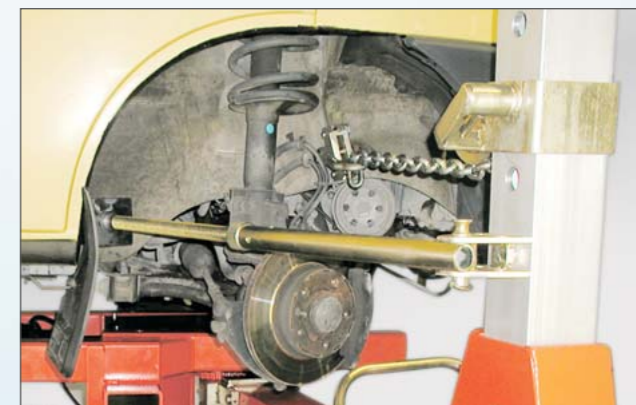
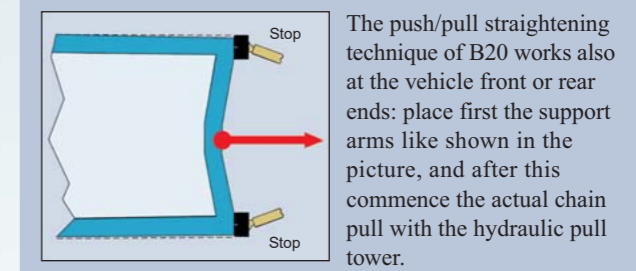
Autorobot's research and testing team has developed a new, faster technique for straightening the vehicle chassis and body. With the new push/pull technique hydraulic support is targeted to the area where the damage starts and this helps to get the vehicle straightened better. The support prevents the pulling force from effecting the undamaged area and mounting points. The new technique makes it possible to use quick lock fastening for speedy repairs of minor damage. The biggest advantage of the new push/pull method is the capability to repair the new, stronger body materials.



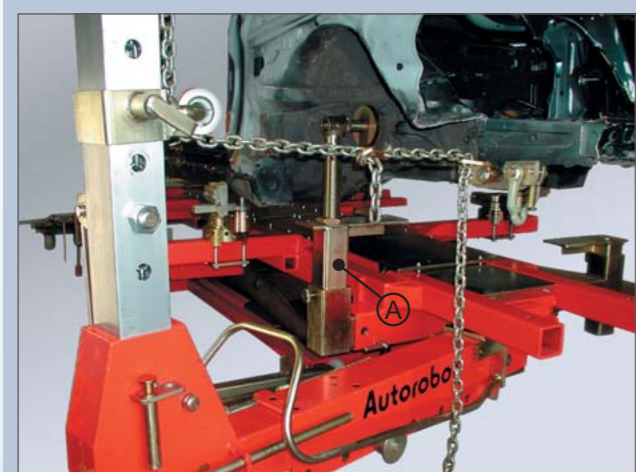
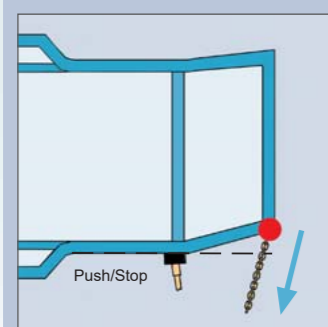
The pull/push tower of B20 straightening bench provides simultaneous horizontal and vertical pulls. B20-4A support beam protects the vehicle frame from changing its form during demanding pulls. Fast upward pulls are possible thanks to the round case and telescopic structure of the overhead tower.



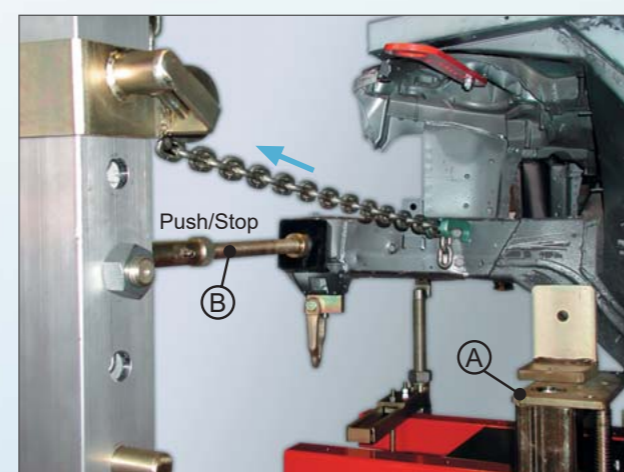
The overhead tower turns in horizontal plane and it can be turned heightways in three different positions. In its upward position the tower is high enough for straightening the roofs of raised vans.



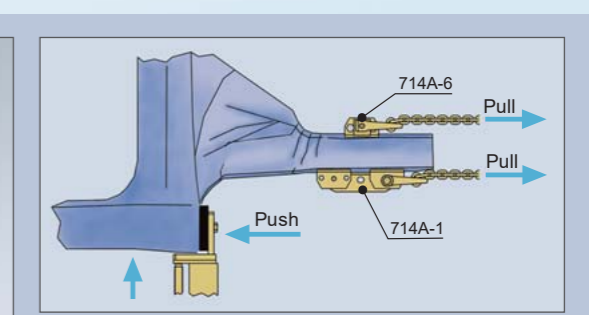
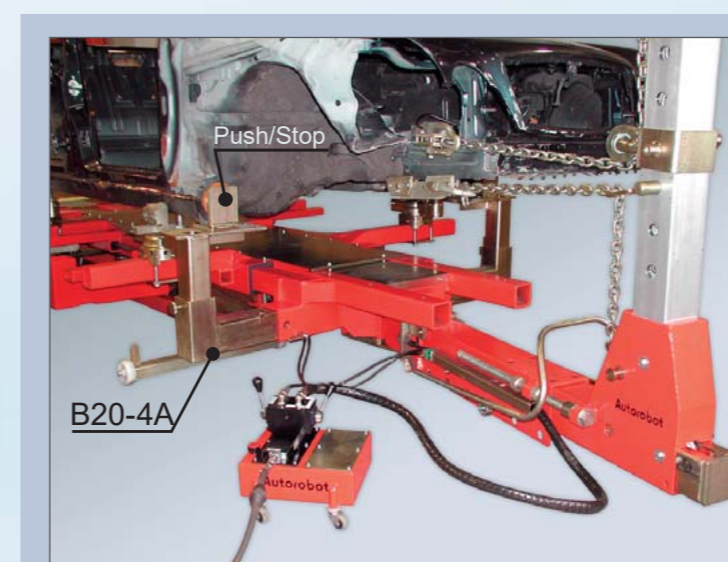
The B20's pull/push tower includes an adjustable support arm, which is mounted to the bending point of the vehicle frame with the help of the tower hydraulics.



One of the special features of B20 is the hydraulic straightening unit. The unit can move the support beam (A) lengthwise to the point where the damage area begins. This point must stay in place (unchanged) when the car body is pulled sideways according to the picture.



Double counter support is possible with B20. The support beam A on the straightening bed and the support arm B of the push/pull tower secure correct straightening of the vehicle frame.

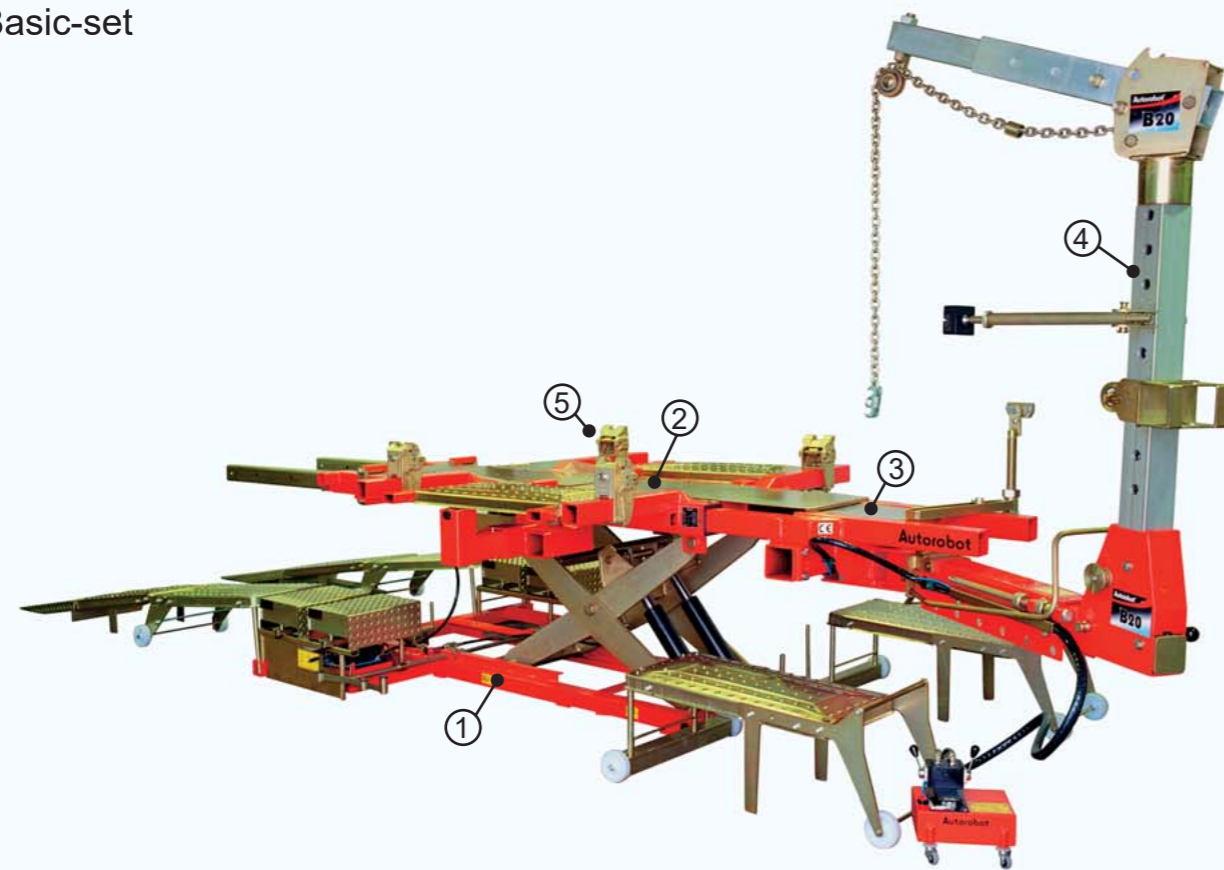


Over 10 t counter pull can be achieved with the push/pull tower of the B20 straightening unit. Counter pull is needed for straightening the frame structures of strong bodies. The Gold set includes B20-4A support beams, which are mounted to the ends of the rocker panel to ensure safe mounting of the vehicle on the straightening bed.

Autorobot® B20

Basic + Bronze -sets and their properties

Basic-set



Bronze-set



- | | | |
|---|---|---|
| 1 | 4 t lifting unit with drive-on ramps. The scissor lift elevates the straightening bed with its chassis fasteners so that the car weight lies completely on the clamps. When lifting is further continued, the car wheels rise from the drive-on ramps. This technique patented by Autorobot years ago considerably reduces the fastening stages, which means shorter repair time. The front and rear drive-on ramps are connected to the frame of the lifting unit and they can be easily moved with their wheels. The wheels make it possible to use the same ramps in other straightening benches as well. | 1 |
| 2 | Basic part of the straightening bed incorporates the chassis clamp beams. Two of the beams are adjustable to the car length. With the help of an additional module B20-3A (In Gold- and Silver-sets) the adjustable beams move hydraulically, which makes car mounting faster and more comfortable than before. | 1 |
| 3 | Hydraulically driven front of the straightening bed adjusts the bed to the car length and brings the pulling tower and the support set B20-4A (an additional module, which belongs to Gold- and Silver-sets) to the right length. Furthermore, it operates in lengthwise straightening of the car. | 1 |
| 4 | Pull/push straightening tower , which can be adjusted 180° and locked very quickly. 10 t double pulls, upward/downward pulls. 10 t pull, 6 t push and push/pull combinations for demanding straightening. | 1 |
| 5 | 4 pcs quick assembly sill clamps for vehicles with pinch weld. The one-bolt chassis clamps can stay fixed (ready for operation) on the outer edge of the fastening beams even when the car is driven on the ramps. The ease of use helps in making the fastening of the car super quick. For vehicles without pinch weld, such as MB, BMW, Audi, Nissan Micra, Renault Megane, Rover 75, Pick-up/frame type vehicles, there are patented Starblock special fasteners available. | 4 |

Additional modules and their properties



B20-4A Chassis support (jig) set, which hydraulically directs additional support to the car chassis so that the straightening of the damage can be controlled better than with conventional methods. The support set can be used to secure the immobility of the car in the chassis fasteners during powerful pulls. It can be used as a quick lock set for vehicles without pinch weld and frame-type vehicles together with B20-7 series. This method is used for repairing small damages.

Gold
Silver

1 1



B20-3A Hydraulically driven rear end of straightening bed extends the straightening bed to the car length and moves the rearmost chassis fasteners to the right place in lengthwise direction. Furthermore, the same hydraulics can be used in straightening work.

1 1

B20-6 Additional straightening tower with 11 ton hydraulics and chain. An additional tower is needed for simultaneous pulls from both ends of the car, or when you want to pull both sides of the car at the same time, e.g. counter pull and the actual straightening pull.

1 1
(2)



676B-2 Two-point support (jig) set for demanding repairs to keep a certain part of the car in its place during straightening work. Due to the robust structure of the second support it can be used also in horizontal straightening of frame. The threaded rods of the straightening set can be used for vertical pulls. Chassis support is needed also during roof structure renovations.

1



B20-7 Lifting pad and fastening set for lifting the car and for small repairs. During straightening work the set is used together with B20-4A series or with the support unit of the straightening tower.

1



B20-9 Pull and push set supports vehicle structures and works with push straightening and chainless pulls. Straightening hook and gripper included.

1



B20-8 Tower adapter makes it possible to use a second pull tower in the front of the B20. A double pull is necessary when you need to pull the car frame on the left and on the right at the same time.

1

Autorobot® B20

Super fast vehicle mounting with patented chassis fasteners and hydraulically extending straightening bed



With B20 bench lifted in upmost position, the repairer has a good working position when repairing the car chassis. Small damage can be handled very fast with the instant support kit No. B20-4+.



The B20 lift is lowered down to give good access for pulling the vehicle upper structures. The push/pull tower of the B20 straightens damage quickly with push & hold technique.



Autorobot® XLS+

Multifunctional lift/straightening bench



Manufacturer:

Autorobot
FINLAND OY

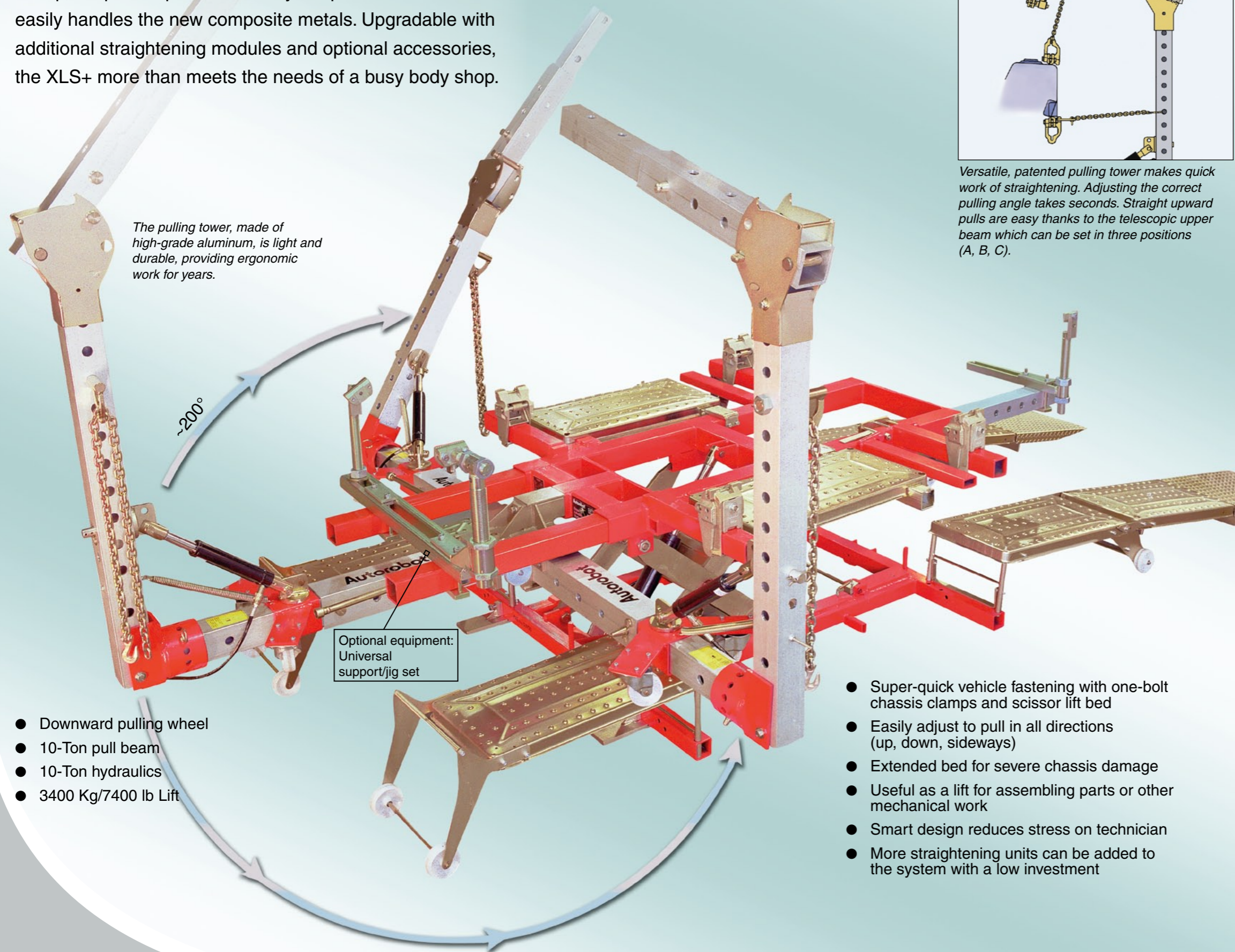
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Seller:

**Technology
from FINLAND**

Autorobot® XLS+

The XLS+ frame bench is proven to increase profit in body shops. Its patented, modular design makes it quick to set up, simple to operate and very adaptable. The XLS+ easily handles the new composite metals. Upgradable with additional straightening modules and optional accessories, the XLS+ more than meets the needs of a busy body shop.

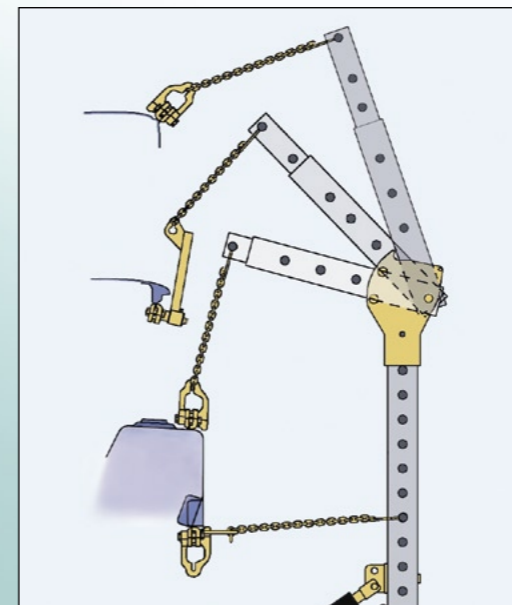


The pulling tower, made of high-grade aluminum, is light and durable, providing ergonomic work for years.

- Downward pulling wheel
- 10-Ton pull beam
- 10-Ton hydraulics
- 3400 Kg/7400 lb Lift

Optional equipment:
Universal
support/jig set

- Super-quick vehicle fastening with one-bolt chassis clamps and scissor lift bed
- Easily adjust to pull in all directions (up, down, sideways)
- Extended bed for severe chassis damage
- Useful as a lift for assembling parts or other mechanical work
- Smart design reduces stress on technician
- More straightening units can be added to the system with a low investment



Versatile, patented pulling tower makes quick work of straightening. Adjusting the correct pulling angle takes seconds. Straight upward pulls are easy thanks to the telescopic upper beam which can be set in three positions (A, B, C).



Simple, quick-action fasteners and lift bed are intelligently designed to minimize vehicle mounting time.



Uniquely designed, the Autorobot XLS+ reduces operator stress and increases productivity. Straightening modules and accessories are interchangeable between Autorobot benches in other bays.



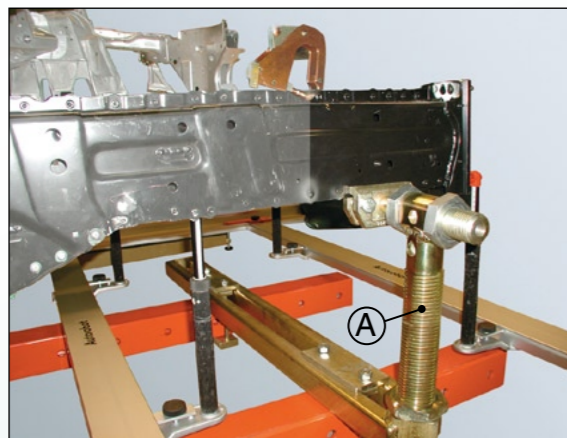
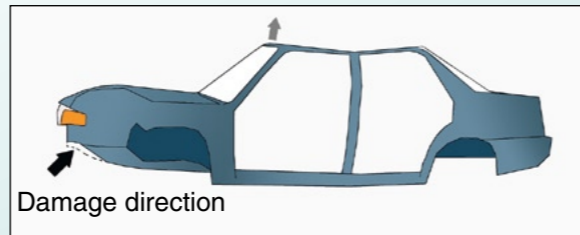
Autorobot XLS+ quickly adjusts for pulls in all directions (up, down, sideways).



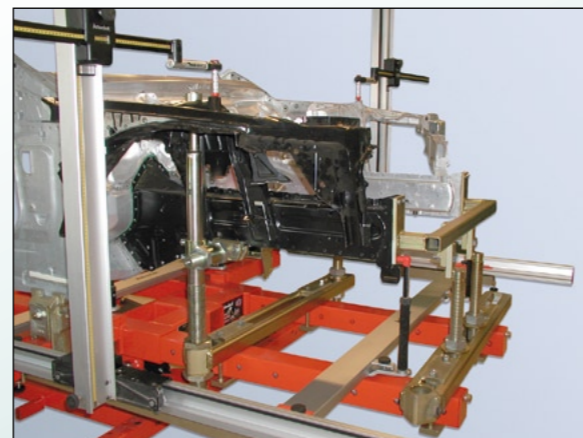
Use the XLS+ as a lift for reassembling parts or for other repairs. It allows easy access to the front end, engine and wheel assemblies.

Autorobot[®] XLS+

Equipped with extension beams and support kit, Autorobot XLS+ takes on the most demanding straightening jobs. For example, on the car below, the front frame was pushed upward as shown in the drawing to the right. It is being straightened to original specs using the measuring system.



The support/jig system (A) will hold a new part in its correct position as the vehicle is pulled to it. Shown here, the new frame end is held in place during straightening and after, for welding.



All new parts can be correctly positioned on the front of the car with the multi-purpose support/jig system. 3D measuring system ensures top-quality results.

Patented. All rights reserved.

Seller:

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Autorobot[®]

B5 B10 B30

B5 • MODULAR COLLISION REPAIR SYSTEM



Expandable collision repair system

Autorobot[®] B5

+ Technology
from FINLAND

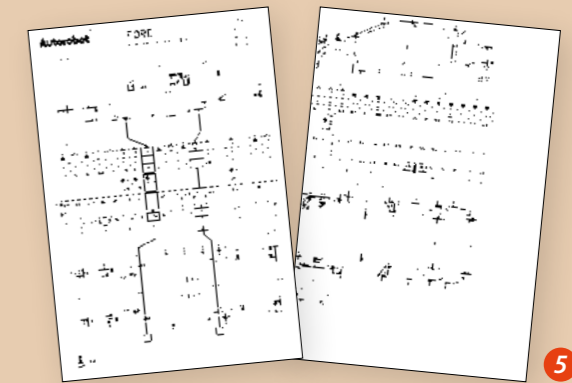
COLLISION
REPAIR SYSTEMS

Expandable collision repair system **Autorobot® B5**

Autorobot B5 is the newest member of Autorobot B series modular system. This new machine gives the body shop a great and easy way to upgrade/expand the system according to the growing needs of the repair volumes, staff and productivity.



A great straightening speed and high quality of work is achieved with a straightening tower that is adjustable for sideways straightening of the vehicle just in a few seconds. 300MC Mechanical tram gauge (B5 A and B5 A+ Set) that includes 3D vehicle measuring database makes the straightening work and achieving the best final result easier.



Autorobot B5 collision repair system includes standard Autorobot straightening bed with quick sill clamps offering the quickest vehicle mounting available in the market. Additionally, B5 uses the already familiar straightening tower, which gives speed and working comfort to straightening. In our tests we have found the durability of special aluminium tower better than the metal one. Autorobot B5 can be made longer by using telescope structure extension beams, which give a long structure to the straightening bench allowing the bench to work perfectly also in very demanding straightening work like changing/straightening the entire roof or frame structures.

Benefits of Autorobot B5	
	Super-quick vehicle fastening with one-bolt chassis clamps
	Light straightening tower made of special aluminium makes straightening work easy
	Change of pulling direction just in a few seconds
	Functions also in demanding straightening tasks when equipped with a long structure
	Easy to expand to a larger collision repair system (B10, B30)

With Autorobot B5 collision repair machine you can handle all passenger cars, SUVs and vans. The mounting of vehicles without the pinch weld happens with patented Star/Starblock fasteners.



Autorobot B5 A+ Set is a two working platform system. The lift A-20 works in Autorobot B series allowing the mounting of the vehicle to B5 as well as the right working height. Thanks to its easy to move -feature, the lift A-20 can be used also for disassembly and assembly tasks of the vehicle.

Autorobot B5 technical information

Lifting capacity	2000 / 3000 kg, 4400 / 6600 lbs
Lifting height	0.75 m / 2.5 ft
Pulling force	Approx. 10 tons
Maximum vehicle length	5.5 m / 18 ft
Required Power	Air pressure
Required floor space	4.5 x 7m / 14.8 x 23 ft (with drive-on ramps attached)
Weight (approx.)	880 kg / 1900 lbs



COLLISION
REPAIR SYSTEMS



Pneumatic lift that belongs to B5 basic set makes mounting of a vehicle easy. The collision repair system can easily be lifted to a suitable ergonomic working height with help of the pneumatic lift.

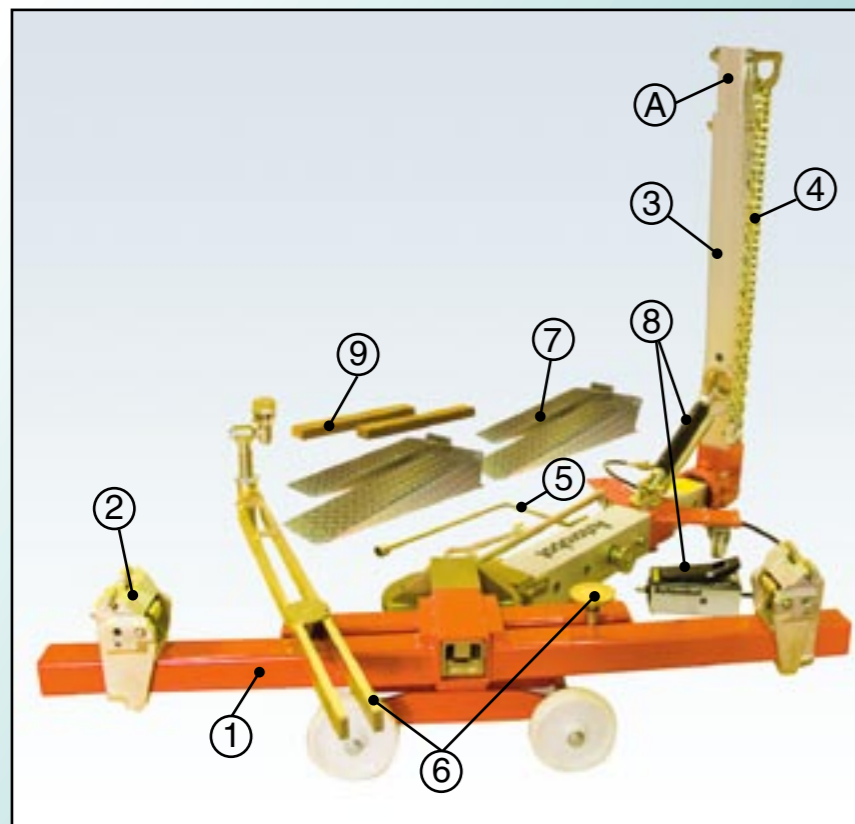
Manufacturer:



Yrittäjätie 23, 70150 Kuopio, Finland
Tel. +358 10 322 5711, +358 50 408 0937
E-mail: autorobot@autorobot.com
www.autorobot.com

Seller:

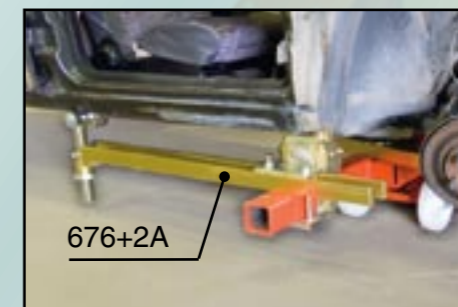
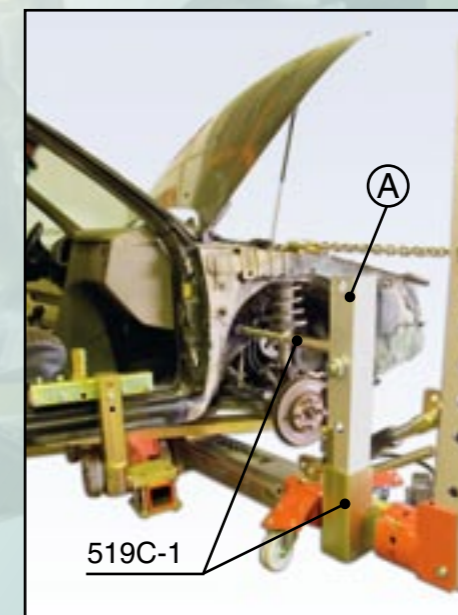
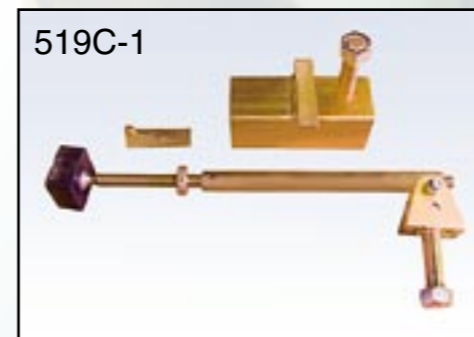
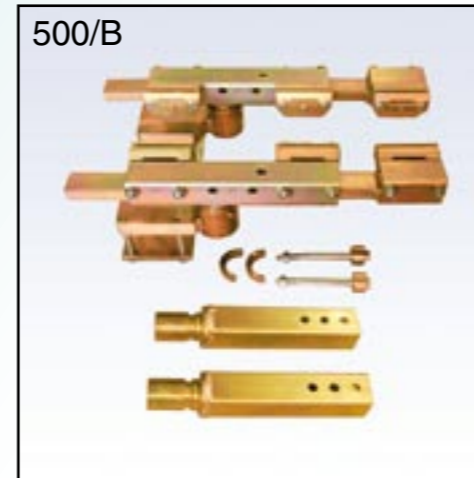
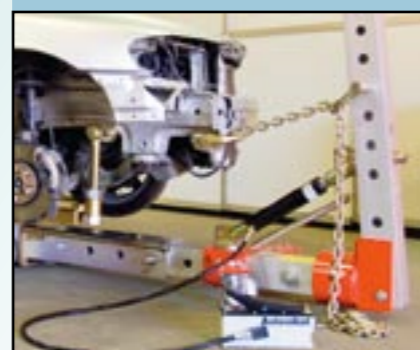
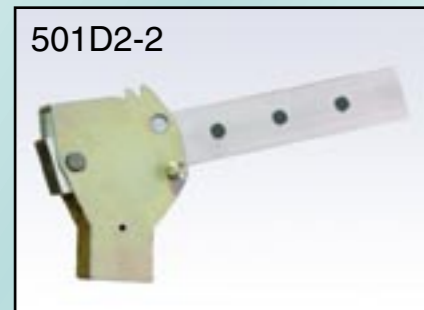
Autorobot® Micro B



Basic Equipment

- | | | |
|----|-----------------------------------|------|
| 1. | Frame | 1 pc |
| 2. | 162+ Chassis clamp | 2 pc |
| 3. | 501D-1 Pulling tower | 1 pc |
| 4. | 673 Chain 2, 5m | 1 pc |
| 5. | Wrench | 1 pc |
| 6. | 676+2A Support kit (incl. wrench) | 1 pc |
| 7. | Ramp | 4 pc |
| 8. | 10-t hydraulics (cylinder + pump) | 1 pc |
| 9. | Support blocks | 2 pc |

Accessories



Accessories

Seller:

Manufacturer:

Autorobot
FINLAND OY

Yrittäjätie 23, 70150 Kuopio, Finland
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Autorobot[®] Micro B

Autorobot Micro B is a professional straightening bench designed for easy set up and quick pulls. Its modest cost makes it a great investment for any size body shop. Micro B is particularly suited for small body shops with limited floor space.

Vehicle fastening is easy with Autorobot Micro B. Its nimble design and quick set up time make it ideal as an auxiliary straightening unit for body shops that use typical jig benches. The Micro B is perfect for

fast repair of small to moderate body damage and for use when the big benches are tied up with complicated repairs.

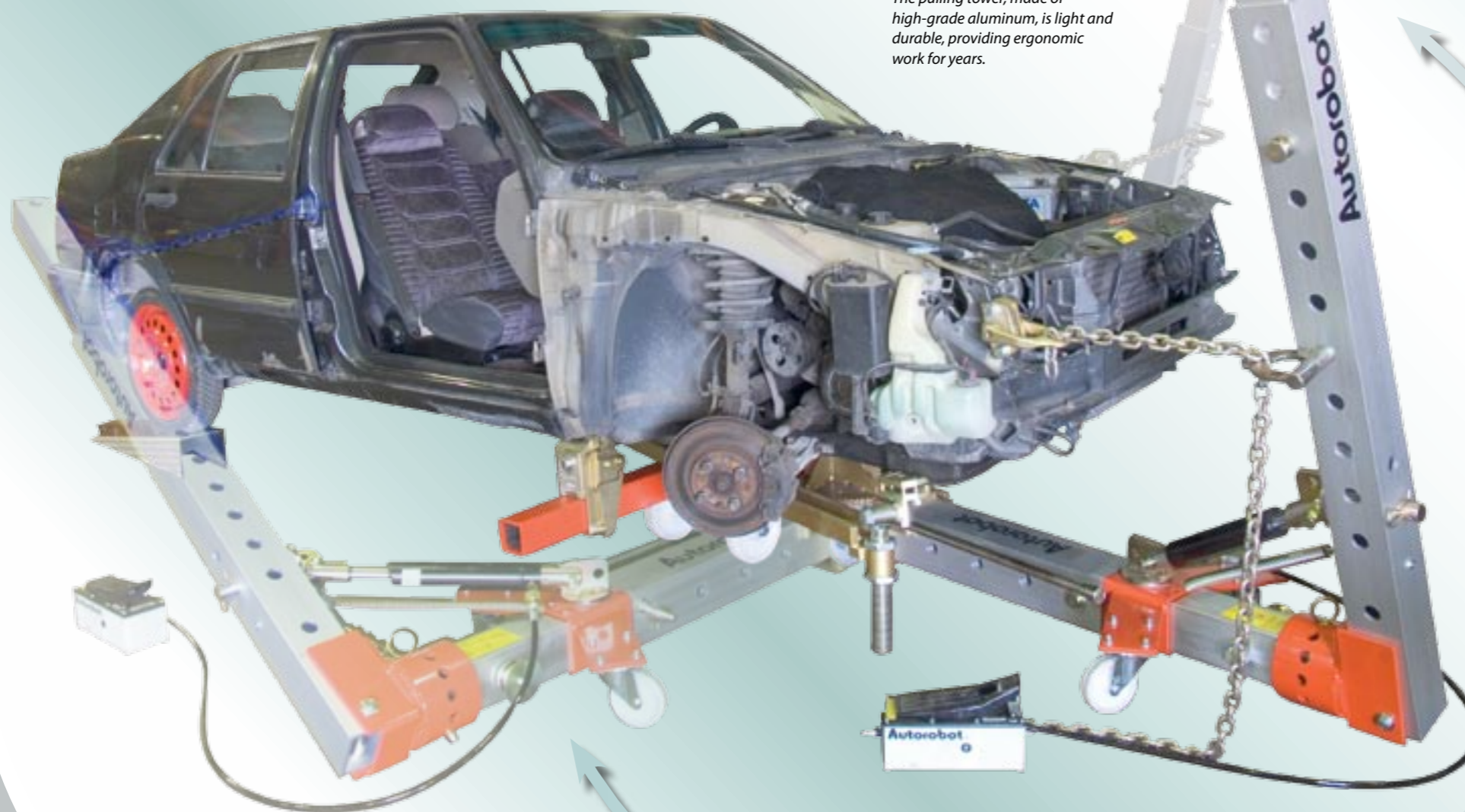
Super-quick, one-bolt chassis fasteners come standard with the Micro B. These are designed for autos with pinch welds. Optional accessory packages include fasteners for full-frame vehicles and those without pinch welds.

Micro B's fastening and pulling components are interchangeable with other Autorobot benches. Thus, the body shop with a Micro B can cost-effectively upgrade to the Autorobot XLS and/or B20 with lower purchase prices on the larger units. The Micro B is a sensible investment in straightening technology.

- Super-quick vehicle fastening with one-bolt chassis clamps
- Easily adjust to pull in all directions (up, down, sideways)
- Smart design reduces stress on technician
- More straightening units can be added to the system with a low investment



The pulling tower, made of high-grade aluminum, is light and durable, providing ergonomic work for years.



- Downward pulling wheel
- 10-Ton pull beam
- 10-Ton hydraulics

180°

Versatile, patented pulling tower makes quick work of straightening. Adjusting the correct pulling angle takes seconds. Straight upward pulls are easy thanks to the telescopic upper beam which can be set in three positions. 501D2-2 is optional equipment.

