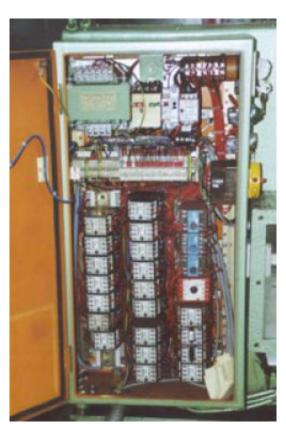
Retrofit and Upgrade of hydraulic and mechanic Presses

trofit, upgrade, refurbushment, modernization. All these terms are in use. But they all mean the same: to redesign and to reconstruct the control of an old press up to the actual state of technology.
fore deciding the question whether to buy a new press or to retrofit the old one the following aspects should be considered:
e basic elements of the old machine e.g. machine body and cylindres are still in a good shape.
achine operators are familiar with the machine handling.
ere are lot of tool sets for the press or pressbrake.
t the electrical and/or hydraulical machine control are obsolete and do often not meet the requirements of the actual safety instructions. Repair are expensive. Spareparts are rare or even not available any more
the electrical annual nyulannean machine control are considered and not office the requirements of the actual safety instructions, Repair are expensive. Spacepairs are that or even not available any more
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper! Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit measures can increase the machine properties and the capability, too:
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper! Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit measures can increase the machine properties and the capability, too:
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper! Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit measures can increase the machine properties and the capability, too:
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper! Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit meanures can increase the machine properties and the capability, too:
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper! Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit meanures can increase the machine properties and the capabilty, too:
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper! Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit measures can increase the machine properties and the capabilty, too:
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper! Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit measures can increase the machine properties and the capabilty, too:
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper? Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit measures can increase the machine properties and the capability, too:
retrofitting the old press yoe will get a press or pressbrake as good as new but much cheaper! Normally the retrofit costs are only 25-30% of the price for a new machine. And you should also consider that retrofit measures can increase the machine properties and the capability, too:
rease of Productivity
rease of Productivity reducing the repair times and times off.
rease of Productivity
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off. rease of Quality *better accuracy and better machine handling and programming.
rease of Productivity reducing the repair times and times off.
rease of Productivity reducing the repair times and times off. rease of Quality *better accuracy and better machine handling and programming.

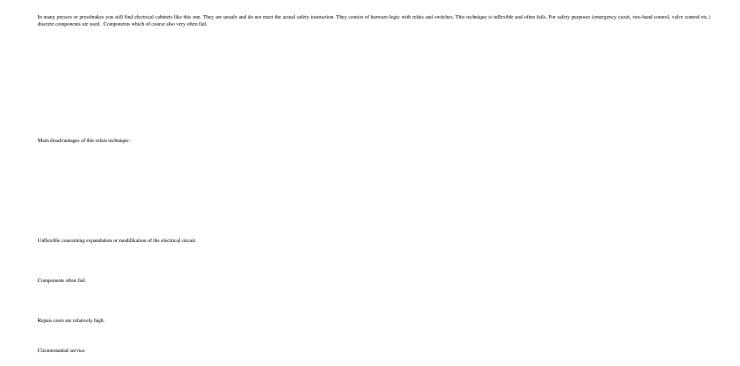
We have about 14 year experience in retrofitting and upgrading old presses. We learnt that in average the costs for retrofitting do not exceed more than 25-30% of the price of a new machine.

Please contact us. We will advise you and will check which special possibilties of retrofitting can be realized at your press/pressbrake.

These photos show a 3000 kN Safan pressbrake in Abu Dhabi (IMAC IMCC). We have installed a new Delem DA69 at this machine and an electrical cabinet with a Pilz PSS plc and linear scales too. Now the machine control is good as new



Electrical press cabinet in obsolete technique





Safe Presscontrol PSS 3100 (Pilz)

The current european safety instructions require for the electrical circuit and the hydraulic press control as well the safety level 4 resp. SIL 3 to avoid accidents during operating the presses. That means: electrical and hydraulical circuit must have a at least 2 channel redundancy. If there is a failure in one of the control



Electrical cabinet in hybrid technics: PSS / S7-300

Press Controls based on modern PLC-Technics

For retrofitting or upgrading hydraulic presses or pressbrakes we always use safe plc controls : PSS controls (Pilz) or \$731x Failsafe (Siemens). These ple have the required redundancy and they are allowed for controlling presses. All safety functions like emergency control two hand control, operating of the lightcutrain output signals. valve control et are realized by software moduls.

This SPC technics has a lot of advantages:

Integration of diagnostic softwrae which makes the service very easy. Failures can be displayed at a screeen or text displayed

The are no electrical components which can fail, all functions are realized by software

The CPU is safe concerning failures





Hydraulic Safety Controls

In presses or pressbrakes also the hydraulic cicuit has to be designed and realized with the required redundancy. Normally presses have 2 controlled valves at each cylindre with electrical deflection control.

Well, we retrofit and upgrade your hydraulic press control so that it will meet the requirements of the current safety instructions. Please contact us, we will advise you.

 $The \ right hand \ photos \ shows \ an \ upgraded \ hydraulic \ safety \ control \ with \ deflection \ controlled \ valves$