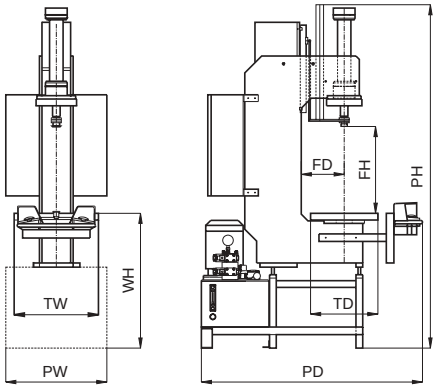
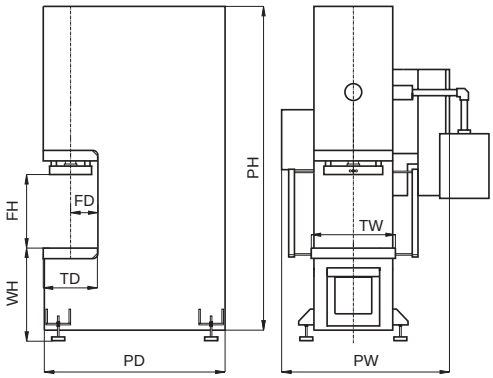
ULBRICH

Technical data

Montagepressen C80, C125, C200



Universalpresse C400



Important Dimensions	C80	C125	C200	C400
Overhang (max) FD	250	250	315	250
Aperture (max) FH	500	630	800	700
Depth of press block TD	400	400	500	500
Width of press block TW	450	450	600	800
Depth of press PD	1320	1320	1400	2000
Width of press PW	600	600	700	1600
Height of press PH	2050	2400	2750	3200
Working height (min) WH	800	800	850	900

Dimensions in mm

C-Frame press		C80	C125	C200	C400
Press force:	max. kN	80	125	200	400
	Range kN	2,5-80	5-125	10-200	20-400
	Accuracy of measurement	< 3%	< 3%	< 3%	< 3%
	Accuracy of monitoring	< 2%	< 2%	< 2%	< 2%
	Resolution	0.1 kN	0.1 kN	0.1 kN	0.1 kN
Cylinder stroke:	max. mm	355	450	600	500
	Accuracy of measurement	0.01mm	0.01mm	0.01mm	0.01mm
	Accuracy of monitoring	< 0.1mm	< 0.1mm	< 0.1mm	< 0.1mm
	Resolution	0.01mm	0.01mm	0.01mm	0.01mm
Approach speed:	mm/s	180	180	150	420
Press speed:	mm/s	40	40	35	77

Depth of aperture:	FH, mm	500	630	800	700
Overhang:	FD, mm	250	250	315	250
Press block:	mm	450 x 400	450 x 400	600 x 500	800 x 500
Weight approx.	kg	550	650	959	4800

Power of motor	KW	3	5.5	7.5	11
Operating voltage:		400V, 50Hz	400V, 50Hz	400V, 50Hz	400V, 50Hz

Control system:	Q-CONTROL	Q-CONTROL	Q-CONTROL	
	Q-CONTROL PLUS	Q-CONTROL PLUS	Q-CONTROL PLUS	Q-CONTROL PLUS

Options	Rotary table	Rotary table	Rotary table	
	Linear-feeder	Linear-feeder	Linear-feeder	Linear-feeder
	Handling-robot	Handling-robot	Handling-robot	Handling-robot
	Ejector	Ejector	Ejector	Ejector

The technical layout fulfils the latest safety and accident prevention regulations ,the Universal press C400 is Prototype tested.
Special dimensions are available upon request.

STEYR Axle assembly press

RENAULT 4X4 Gear assembly press

AUA rivoting of brake linings

Control Features

ULBRICH Intelligent Presses have two standard types of control. The ULBRICH Q-CONTROL system utilizing SPS or the ULBRICH Q-CONTROL PLUS which makes use of a P.C. Both variations can be mounted onto the press frame either rigidly or with flexible joints allowing sliding and or rotational movement.

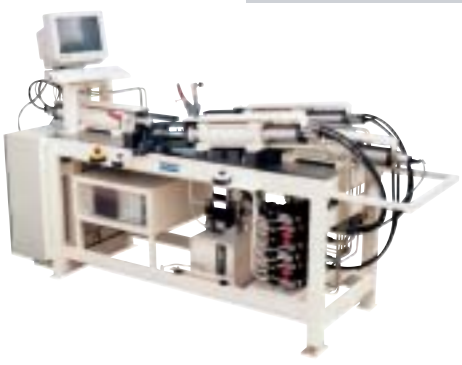
ULBRICH Q-CONTROL

- Programm features
- Press Force and speed infinately variable
- Holding Force and holding time variable
- Monitoring of press force throughout the complete stroke
- Position control over the complete stroke
- Memory with capacity for 20 programms
- Programm recall through tooling No. and part No. possible
- Registration of operator
- Registration of order No.
- Presentation of all significant process Data,clearly arranged on the display
- Comparisons for “required” /“actual” results from the press cycle are presented on the control screen
- Result of press ,ie N.I.O. or I.O. displayed on control screen
- Locking of the press stroke following an error message is an option
- Deformation is compensated by press programm
- Accuracy: +/- 0,01mm, < 3% of given press force
- Service hour counter,stroke counter and part No.
- Press result,operator,date & time ,programm No. & data, Part No. & Order No. are registered after every press run and can be transmitted via an interface for further usage i.e. when required,the data can be printed out, Highly suitable option for Q.A control

ULBRICH Q-CONTROL PLUS

- Programm features
- Press force and speed infinately variable
- Holding force and holding time variable
- Monitoring of press force throughout the complete stroke
- Monitoring of the position throughout the press stroke
- Unlimited memory capacity for press programms
- Programm recall through tooling No. and associated part No. possible associated part No. possible
- Registration of operator
- Registration of order No
- Presentation of all significant process data, clearly shown on control screen
- Presentation and comparison of the variation between “required” and “actual” press result shown on control screen
- Result of press ,ie N.I.O. or I.O. displayed on control screen
- Locking of the press stroke following an error message is an option
- Deformation is compensated by press programm
- Accuracy: +/- 0,01mm, < 3% of given press force
- Service hour counter,stroke counter and part No.
- Press result,operator,date & time ,programm No. & data, Highly suitable option for Q.A control Part No. & Order No. are registered after every press run and registered and saved on the P.C.´s Hard Drive
- Presentation of the press curves:-“stroke/force” and “stroke/time”
- Press curves can be saved in P.C. memeory
- Setting of envelope curve with tolerance band
- Statistical evaluation possible
- Simple tabular programming screen for new or adjusted press runs
- Manual teach in function.Positional input taken from actual physical position.
- Additional No. of extra input/output functions programmable
- Programmable “placement” stops (for intermediate handling)
- Cutomized control screen layout and design
- Lan/Wan compatibility
- Press/operating data can be further processed using Microsoft Windows as a work platform
- Additional note book function

STEYR Gear assembly press



MERCEDES Transverse control arm press

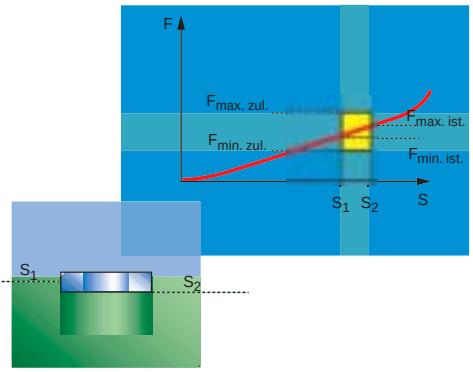
NEDTRAIN leaf spring test press

Process Integrated Quality Control

In order to comply with current Quality Assurance Standards, all production steps should be guided and controlled within defined tolerance levels and then these values must be effectively documented.The Ulbrich Q-Control press system enables a graphical representation of pressing and jointing cycles and with the use of an envelope curve or monitoring windows, a qualitative evaluation can be made and saved.Thus providing the ability to create the neccessary Quality Assurance documentation. The Ulbrich Q-Control press system caters for the guidance and control of the press run with analysis of the Force/Distance curve and pre-set values.

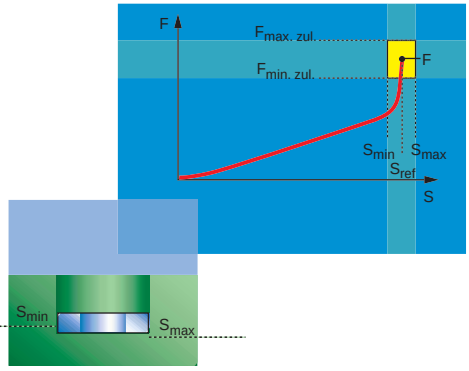
Possible Press Control Options:

Press Force Monitoring throughout press cycle



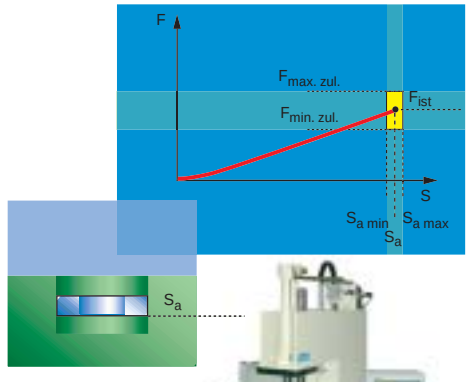
This mode enables the operator to control (within set tolerance levels) if the actual Press force between position S_1 and S_2 corresponds to the pre-determined acceptable values for the Max. and Min. press force ($F_{min\ zul}$ and $F_{max\ zul}$) The positional values for S_1 and S_2 and the authorized Force levels F_{max} and F_{min} are programmable. When the press curve runs through the pre-set window, as shown here in the graph, then the actual press force is within pre-set tolerance, i.e.=I.O. (in order). With the Ulbrich Q-Control option, up to three pre-set windows can be programmed.For example,initial positioning (this function ensures that the jointing elements are aligned .When not aligned ,then the force curve will exceed pre-set tolerance levels and will not remain within window).The setting of a press force window allows monitoring of press force in the pre-set positional fields .Should the force be too low,then we assume that the tolerance of the jointing elements is too excessive i.e. press fit is too loose.Vice versa ,when too high ,then the press fit is too small.

Positional monitoring of press run with end force:



Utilizing this function enables the operator to monitor if the tolerances of the jointing elements are “in-order” and if the pre-determined end force is reached.Making use of a reference (bench mark)work piece, the zero position S_{ref} is registered by running the press with the pre-set force to the end position.Thus referencing the work piece. The acceptable minimum press-in force $F_{min\ zul}$ and the acceptable maximum end press force $F_{max\ zul}$ in are programmed in conjunction with the acceptable positional variations of S_{min} and S_{max} in order to reach Zero postion S_{ref}. When we now press a work piece with pre-set end force,we get an evaluation of the actual poition reached. When positional values lie within pre-set tolerance levels; S_{min} and S_{max} and end force achieved, then = I.O.

Force and positional monitoring during a press run to a pre-set position:



The purpose of this mode is to enable the press run to move to a pre-set position,the min and max values must lie within the pre-programmed levels.The pre-set position S_a as well as the min force; $F_{min\ zul}$ and the Max force; $F_{max\ zul}$ are pre-set. Upon reaching the pre-set position,the actual applied press force F ist will be registered.Should F ist lie within the given tolerance between $F_{min\ zul}$ and $F_{max\ zul}$, then press result = I.O. Should the pre-set end position not be reached (within set tolerance: $S_{a\ min}$ & $S_{a\ max}$) or if the actual applied force F ist is out of the pre-set tolerance band ,then press-run = N.I.O.(not in order)

GETRIEBEBAU NORD Gear assembly press

ÖBB Bogie wheel set test press

ATLANTA Gear assembly press

ULBRICH Q-Control

- **Garantees a safe working cycle**
- **Fast user friendly programming**
- **Press accuracy down to 5/100 mm**
- **Faster work cycle through automation**
- **Cuts out defective end product through distance over force monitoring**
- **Permanent documentation of every press-run**

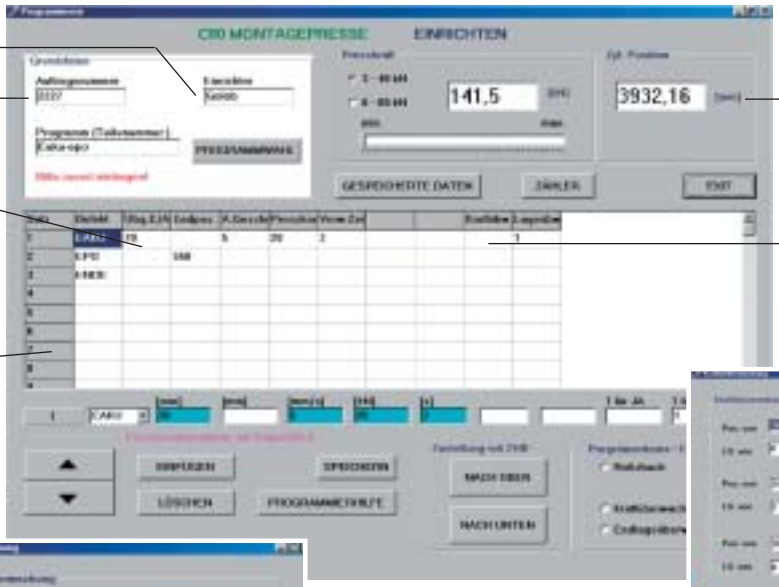
user friendly screen layout

Registration of operator

Registration of contract No.

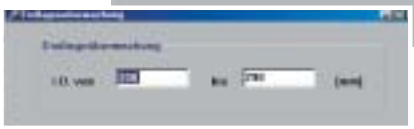
Approach speed
Press speed
Holding time and transistion from approach speed to the press cycle programmable

Simple cell based programming



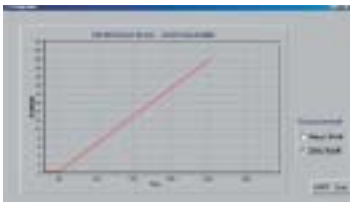
Display of the actual cylinder position enables the use of a "Teach In" programm

Freely programmable widow for the monitoring at every required position



Freely programmable end position monitoring

Saving of data in Excel
for assimilation and further useage defined by user



Graphical presentation of press cycle as force/distance or force/time curve

simple to use in conjunction with automated working cycles

Actual press force

Actual position of cylinder

Automatic work piece counter & registration

All relevant process data and result displayed in "finnishing" mode

FAG ABS Ring assembly press

ARGO Hydraulic Fliter press

FAG Ball bearing assembly press

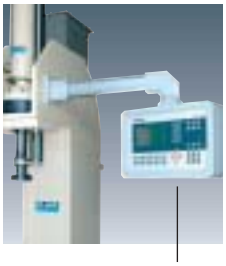
C80, C125, C200 Assembly Press

Optional
handling robotics

Optional rotary
table

Optional linear
work piece feeder

Special
press cylinder from ULBRICH



Form of communication optional
With use of PC with ULBRICH
Q-CONTROL PLUS or utilising a
display running with the ULBRICH
Q-CONTROL system

Ram element secured
against rotation.
Clamp for tool fitting

Deformation
strengthened
C-Press frame

Energy efficient controlling
eg. Hydraulic shut down
following a 3 min interval
without press-run

Clearance hole in plate
with ejector cylinder option

T-grooves for tool
fitting in accordance
with DIN 650

Two-handed console
including Joystick for
individual & delicate
one-handed handling

Powered by low noise
two step pump mounted with
oscillation damping elements

Height adjustable
Press stand can be
modified to suit the
working enviroment

Power pack with ARGO Fine filter
Contamination level and
temperatuer- monitored
Fault displayed on Note-book
screen or display

50 Years of Experience in the Hydraulic Industry

Contact us!

Fax: ++43 2252 / 80 659 in Austria
Fax: ++49 7621 /162 022 in Germany

Technical requirements:

max. press force:	kN	min. press force:	kN
Stroke:	mm	Strokes / min:	
Surface area B x T	mm x mm	Height of base:	mm
Overhang (distance from middle of ram axis to back wall		mm	
Aperture(distance from press plate to ram):		mm	
Press plate with T- groove for tool fitting			
Tool fitting clamp on piston rod			
Ram head with T-grooves on piston rod			
Press stand open at rear			
Rotary table with position recognition			
No. of work stations		Pc´s.	

Form of operation:

One-handed;with Joystick (max. 10mm/s)		Two-handed	
One and two stroke operation with light sensor activation			
No. of input		No. of input	

Control system:

ULBRICH Q-CONTROL		ULBRICH Q-CONTROL PLUS	

Type of working enviroment:

Other details:

Name of:

Company | Department

Street | Name/Position

Post code / Town | Telephone | Fax

Many thanks for your enquiry, you will shortly recieve a detailed offer based on the criterion sent

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INTELLIGENT PRESSES

Talk with us !

ULBRICH presses enable you to perform assembling and testing functions in line with the demanding Quality Control requirements set by Industry and the customers own push for more efficiency and their need for internal Q.A. audits.

ULBRICH

HYDRAULIC- ELECTRONIC PRESSES FOR ASSEMBLY & TESTING

C400 Universal press

Power pack with high quality filtration Contamination monitoring Faults displayed on screen

Powered by low noise two step pump mounted with oscillation damping elements

Special press cylinder from ULBRICH

Ram plate with clamp 4 Guiding rods

Press frame open at rear

Clearance hole in plate

T-Groove for fitting in accordance with DIN 650. (in ram & press plate)

Two-handed mobile operators console for single cycle and automated operations

Energy efficient control

Industry PC with high resolution screen

Deformation strengthened C-Frame press

Moveable light sensor safety switch for 1 & 2 stroke assembly cycles

Delicate one-handed operations with use of Joystick for individual strokes and programming of “teach in function”

ULBRICH the Press Specialist with more than