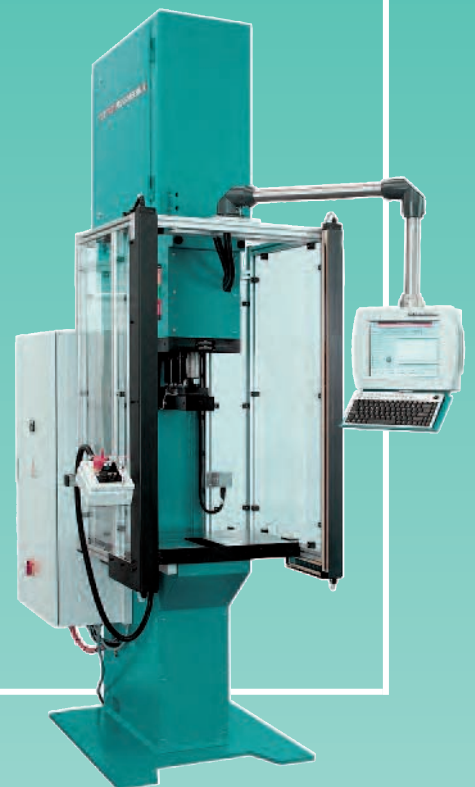




TOX®-Presses

- The gentle giants



Power + Intelligence: Force capacity from 2 to 2000 kN intelligently monitored

Modular Design

Even in the selection of a standard press, you have vast possibilities to

individualize your press. The modular TOX® principle provides for an uncomplicated realization.

Also a customized press, dimensionally and functionally, exactly meeting the requirements.

Standards and Guidelines

TOX®-Presses are safe: They meet all European standards and guidelines. Turnkey machines are CE conforming.

Press frames

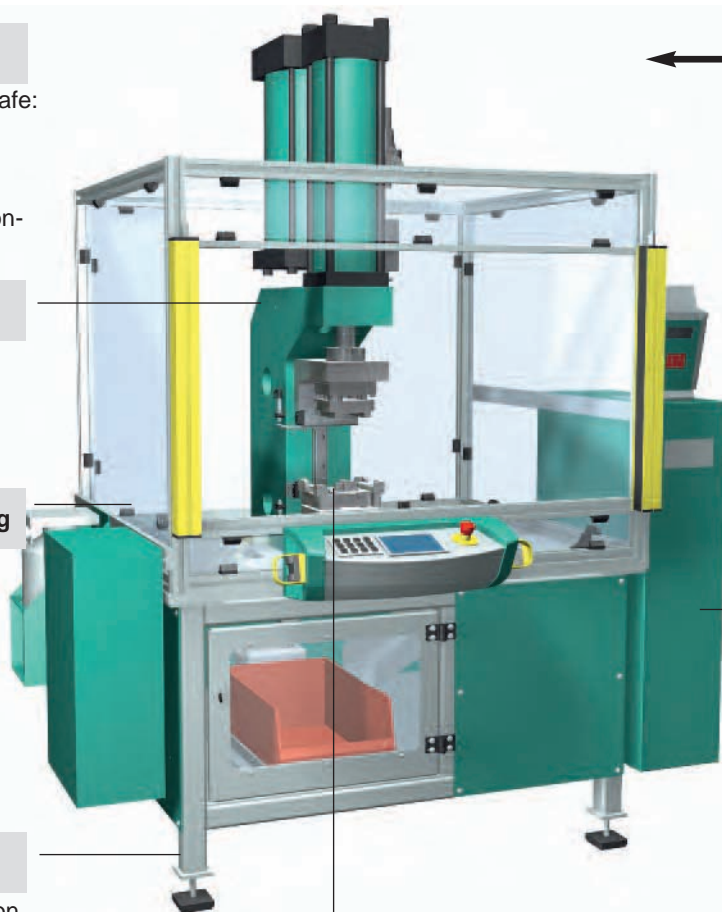
- C-frames
- 2 column
- 4 column
- Welded frames

Perimeter Guarding

- Steel or aluminum framing
- Expanded metal panels
- Polycarbonate panels

Machine Bases

- Welded construction
- Sheet metal construction
- Aluminum framing
- Any size
- With optional damping elements
- Height adjustment
- Standing or seating workplace
- Foot rests and more



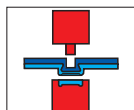
Drive modules

- Pneumo-hydraulic cylinder TOX®-Powerpackage S / K / KT
- Electro-mechanical drives TOX®-ElectricDrive EPMS / EPMK
- TOX® hydraulic cylinder

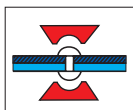
Safety Equipment

- 2-hand consoles
- Light curtains
- Sliding doors
- Safety ring CLX
- Perimeter guarding
- Restraint device

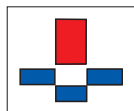
Tooling



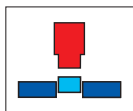
Clinching, TOX®-sheet metal joining



Riveting, Crimping, Flaring



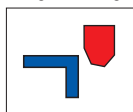
Punching, Piercing



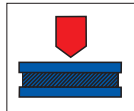
Assembling, Press-fitting, Mounting



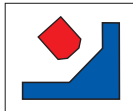
Coining, Marking, Stamping



Bending, Edging



Pressing, Compressing



Clamping, Tensioning, Peening

Part Loading

- By hand
- Slide table
- Index table
- Shuttle

TOX®-Monitoring

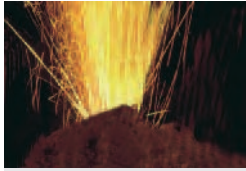
- Force-Travel-Monitoring EPW
- Force-Monitoring CEP

TOX®-Controls

From simple safety controls to complex S7 or Allen Bradley controls, with many options. Integration into superior control and quality assurance concepts possible.

Flexibility through Modularity

Product Programme Overview



TOX®-Powerpackage

TOX®-Powerpackage-Presses work substantially more efficiently than conventionally driven presses. Because, after all, the presses incorporate the unique TOX®-Powerpackage with patented end position dampening and power bypass. An energy saving power cylinder, which combines the advantages of pneumatics and hydraulics: The total stroke is divided into an air operated, low consumption, fast approach stroke, and an automatically activated pneumo-hydraulic power stroke. While pneumatic cylinders and many hydraulic systems consume a lot of energy during the approach stroke, the TOX®-Presses use the power stroke only when needed.
 TOX®-Powerpackage: Total strokes up to 400 mm, power strokes up to 200 mm.



TOX®-ElectricDrive

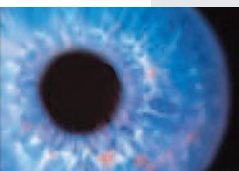
Electromechanical servo drives with planetary roller screw and push-pull force sensor. Highly precise, guided and anti-rotating working rod. Modular drive concept with or without mechanical brakes. Thus utmost safety up to and including category 4 as per EN 954-1, Performance level e as per EN ISO 3849-1 and SIL3 as per EN/IEC 62061 is possible. Simple, operator-friendly programming of spindle motions. The included free TOX®_{soft}Ware contains force-travel monitoring.

TOX®-ElectricDrive: Total strokes up to 500 mm, power strokes according to customer's requirements.



TOX®-Hydraulic-Cylinder

The working cylinder HZ with the same proven seal technology of the TOX®-Powerpackage. Driven by the pneumatic operated TOX®-Intensifier ES, which converts air pressure into hydraulic pressure. The approach stroke is hydraulic, the return stroke pneumatic, an absolutely reliable system, thanks to the patented air/oil separation. For higher approach speeds and larger retract forces, select the TOX® Hydraulic cylinder type AT with an air-to-oil intensifier ES as drive. The hydraulic cylinder AT also features patented air/oil separation for a safe, reliable function. Available also in the HZ version for use with a hydraulic pump, providing hydraulic approach and return stroke.
 Stroke lengths:
 HZ up to 200 mm
 AT up to 400 mm



The Press Controls

Only a machine which has been well matched to the job can provide the required efficiency and desired cost effectiveness. This can be accomplished by a well thought-out control system, which on the one hand is as simple and safe to operate as possible, and on the other hand offers maximum use of its functions.

Select the best suited controls for your press from the vast TOX® standard program: prototype tested, CE-conforming.

Intelligent Monitoring

The TOX® Pressing Monitoring System EPW provides for monitoring of processes requiring documentation of precisely defined functional correlations between force and travel. The consistent check of your pressing operations guarantees a full quality assurance.

TOX® press program: tailored building blocks

Force capacity from 2 to 2000 kN



**C-frame presses
Series PC**

These C-frame presses catch the eye by their shape alone. The slender, prize-winning design was made possible by the use of the compact TOX®-Powerpackages. The welded and stress-relieved press frame is extremely stable and has a very low level of deflection.

page 6



**C-frame bed presses
Series MC**

The compact unit of a C-framepress with TOX®-Powerpackage drive. The height-adjustable tool area makes this series extremely flexible. That's what counts in a bed-type machine and for integration in special machines, transfer devices and production lines.

page 7



**C-frame bed presses
Series MCC**

Most compact, solid and cost effective cast construction. Ideal as single press or in combination with feeding or tool changing systems. Optional ram guide plate with coupling and table bores.

page 8



**C-frame presses
Series CEU**

Stable welded construction with only little deflection, optimal flexibility in application. The press bed is continuously height-adjustable and dismountable.

page 12



**C-frame presses
Series CEC**

The solid cast construction with large throat depth results in a highly versatile all-round press.

page 13



Series CEJ

Flexible modular system. Here it is possible to combine all drives and tool geometries.

page 14

CAD files
 can be found at: www.tox-en.com
 in the download section



C-frame bed presses
Series CEB/CMB

Due to solid steel parts, a flexible use of this frame is possible. The standardized attachment parts make it possible to use it as machine, robot or stationary frame.

page 9



2-column presses
series MB/MBG

High loading capacity combined with minimal dimensions – this principle can be optimally realized in the 2-column presses. Compact 2-plate construction.

page 10



4-column presses
series MA/MAG

Optimal load distribution over the entire clamping surface, minimal centric deflection: these are some of the performance features of the tried-and-tested 4-column press: e.g. with anti-torsion tool holding fixture or with 4-column ram guide.

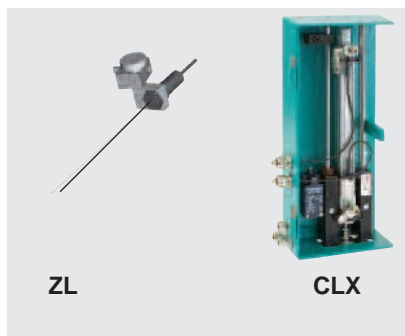
page 11



Universal base frame
Series UUM

When mounting the TOX® presses on an **universal base frame** an ergonomically balanced workstation is obtained.

page 15

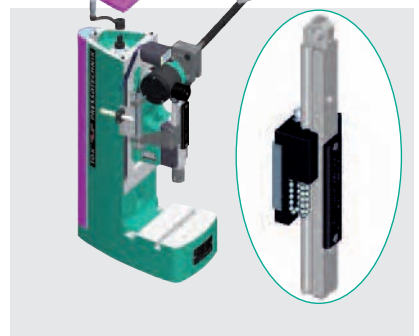


Accessories

More accessories e.g. safety device, light spot see page 16

Press safety

TOX®-Powerpackage presses comply with DIN EN 13736. Further safety components are available. page 17



TOX®-FinePress
Series KF/ZF/PF/PFH

Do you need small presses up to 57 kN press force? Then request the "TOX®-FinePress" catalog of bench type presses.

C-frame presses

Series PC



Picture shows:
Rigid welded construction with modular design.

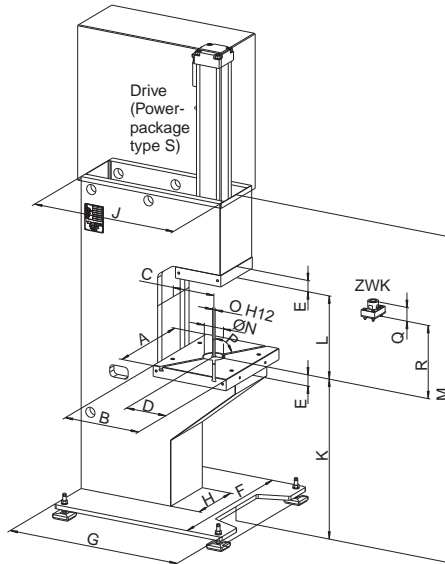
Example: press PC

consisting of:

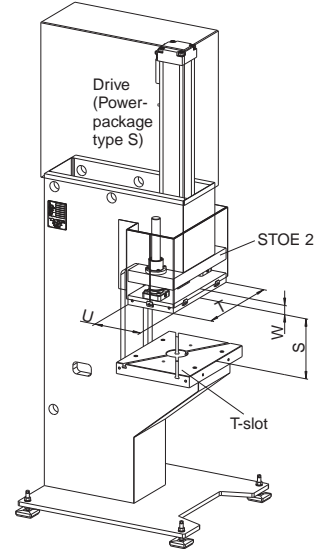
- PC TOX®-Press frame
- Drive TOX®-Powerpackage S/K/KT/EPM
- STOE2..... 2-column ram guide
- SH protective hood
- STE safety control (see page 17)

Additional Accessories:

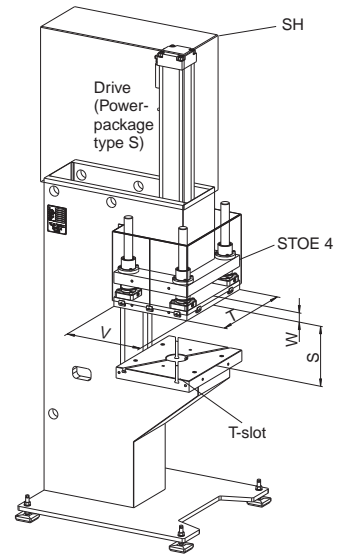
- STOE4..... 4-column ram guide
- T-slots for bed/ram
- ZDO..... pressure switch
- ZWK..... tool holding fixture
- Space requirement for safety elements see page 17



with STOE 2



with STOE 4



TOX®-Presses PC

order number	max. loading capacity kN (t)	TOX®-Powerpackage														optional T-slot			with ram guide					
			A	B	C	D	E	F	G	H	J	K	L	M	ØN	O _{H12}	P	Q*	R*	S	T	U	V	W
PC 008	80 (8)	S/K 8	446	346	205	173	46	700	750	215	600	800	425	1585	60	10	60	70	366	300	446	196	346	46
PC 015	150 (15)	S/K 15	496	396	220	210	56	800	900	295	755	800	416	1630	60	12	60	70	366	300	496	246	396	46
PC 030	300 (30)	S/K 30	596	446	255	230	76	880	1040	377	900	800	487	1785	60	12	60	110	406	350	596	296	446	56
PC 050	500 (50)	S/K 50	696	446	255	231	96	980	1040	455	900	800	512	1865	60	12	60	120	436	350	696	296	446	66
PC 075	750 (75)	S/K 75	896	446	255	226	116	1100	1240	544	1248	800	610	2126	60	18	45	150	516	400	846	-	446	96
PC 100	1000 (100)	S/K 100	996	496	255	248	136	1100	1240	584	1248	800	650	2186	60	18	45	150	576	400	946	-	446	116
PC 200	2000 (200)	S/K 170	1096	596	300	306	156	1200	1450	680	1410	800	710	2336	60	18	45	200	596	400	1096	-	546	136

All dimensions in mm.
Weight on request.

* with tool holding fixture

C-frame bed presses

Series MC



Picture shows:
Stable cast iron construction
with adjustable tool area.

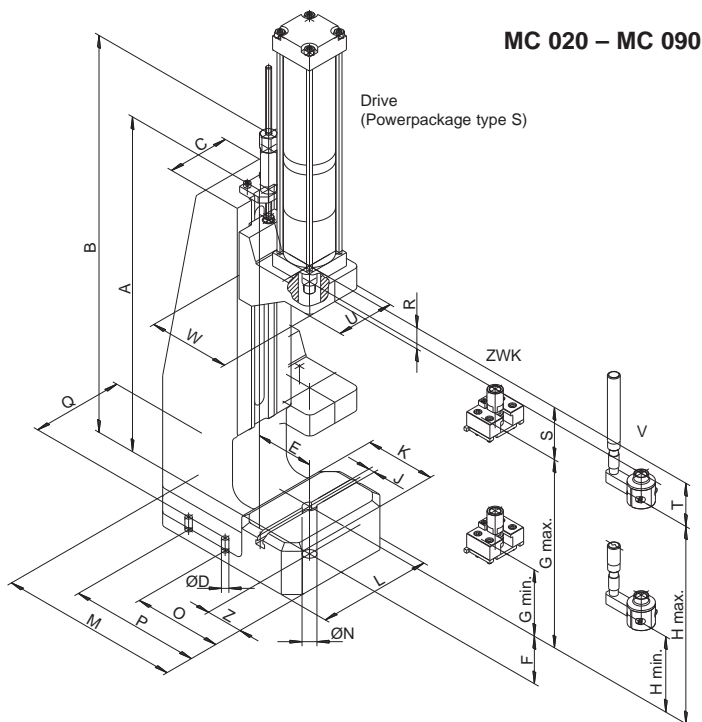
Example: press MC

consisting of:

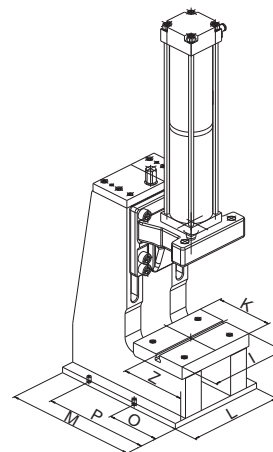
- MC..... TOX®-Press
- Drive TOX®-Powerpackage
S/K/KT/EPM
- ZWK..... tool holding fixture
- STE safety control (see page 17)
- UUM..... universal base frame
(see page 15)

Additional Accessories

- V anti-torsion lock
- ZDO..... pressure switch



MC 150



TOX®-Presses MC

order number	max. capacity kN	TOX®-Powerpackage	A	B	C	ØD	E	F	G _{min.}	G _{max.}	H _{min.}	H _{max.}	T-slot DIN J _{H11}	K	I	L	M	Ø N	O	P	Q	R	S	T	U	W	Z
MC 020	20	S / K 2	550	685	102	2xØ10x21	86	78	109	309	124	324	10	115	-	187	295	20	145	-	150	34,5	86	71	95	134	60
MC 048	48	S / K 4	545	590	160	2xØ14x90	130	105	131,5	291,5	131,5	291,5	14	190	-	250	385	-	235	-	200	43,5	88,5	88,5	120	190	95
MC 090	90	S / K 8	660	705	210	2xØ14x145	150	160	209	305	199	295	14	220	-	310	500	-	290	-	260	57,0	105	115	205	220	105
MC 150	150	S / K 15	703	751	270	4xØ13x20	150	211	196	296	181	281	14	216	296	360	500	-	200	400	325	72,0	126	141	280	253	110

All dimensions in mm.

C-frame bed presses

Series MCC



Picture shows:
MCC frame with mini ram-guide and
S-type Powerpackage.

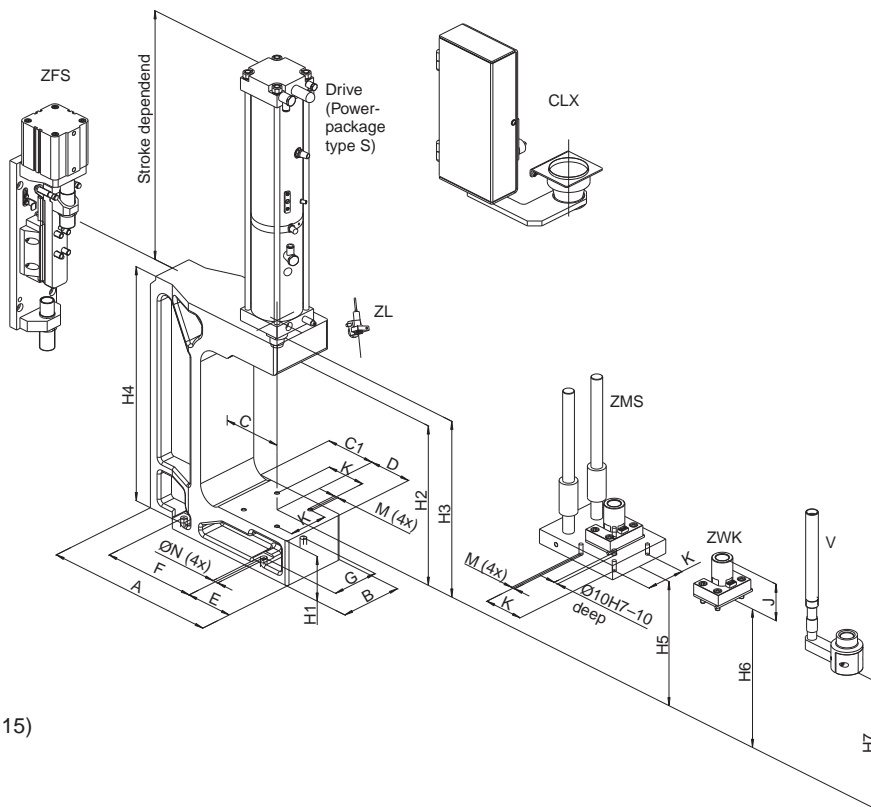
Example: press MCC

consisting of:

- MCC TOX®-Press frame
- Drive TOX®-Powerpackage
S/K/KT/EPM
- UUM universal base frame (see page 15)
- STE safety control (see page 17)

Additional Accessories

- ZDO pressure switch
- CLX safety device (see page 16)
- ZL target feature with light
spot (see page 16)
- ZFS indexing slide
- V anti-torsion lock
- ZPS load cell
- ZMS mini ram-guide
- ZWK tool holding fixture



Mini ram-guide ZMS

Bushings, columns and tool coupling ZWK are included. The center pilot hole provides precise alignment for plate rework.

TOX®-Presses MCC

order number	max. loading capacity kN	TOX®-Powerpackage	A	B	C	C1	D appr.	E	F	G	H1	H2	H3	H4	H5	H6	H7	J	K	M	ØN
MCC 002	20	S / K 2	255	100	100	80	55	45	155	70	65	270,0	295	386,0	195	225	220	70	60	M8	9
MCC 004	40	S / K 4	380	130	150	125	80	60	240	90	90	293,5	330	448,5	220	250	238	80	100	M8	14
MCC 008	80	S / K 8	441	160	150	125	110	90	240	120	110	390,0	430	575,0	305	340	313	90	100	M10	14
MCC 015	150	S / K 15	480	200	150	125	130	100	260	160	150	411,0	480	666,0	320	360	341	120	150	M10	14

All dimensions in mm.

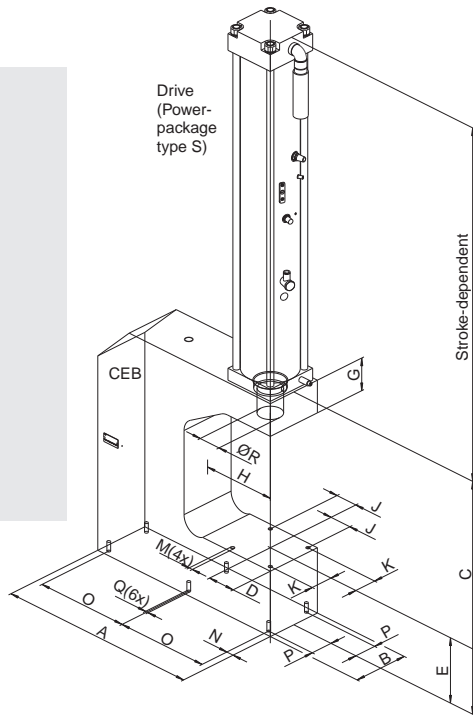
C-frame bed presses

Series CEB/CMB

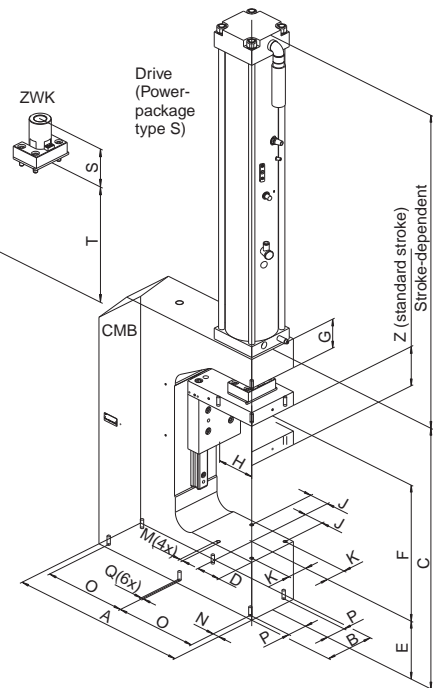
Flexible flame cut solid steel frame



Picture shows:
CMB-C-bow press with linear guidance as standard and S-type Powerpackage.



C-frame type CEB



C-frame type CMB

A linear slide in the frame guides the press ram. No additional guidance is required. Hole pattern on frame side and ram side are identical.

Example: press CEB

consisting of:

CEB..... TOX®-Press
Drive TOX®-Powerpackage
S/K/KT/EPM

UUM..... universal base frame (see page 15)

ZWK..... tool holding fixture

STE safety control (see page 17)

Additional Accessories

V..... anti-torsion lock

ZDO..... pressure switch

ZPS load cell

TOX®-Presses CEB

order number	TOX®-Powerpackage	max. load-ing capacity kN	A	B	C	D	E	G	H	J	K	M	N	O	P	Q	ØR	S	T
CEB 004.300	S / K 4	40	370	90	508,5	50	110	60	150	40	35	4xM8x16	20	165	30	6xM8x16	45	70	300
CEB 008.300	S / K 8	80	420	120	545,0	60	120	75	150	45	45	4xM10x20	20	190	40	6xM10x20	60	90	300
CEB 015.300	S / K 15	150	550	150	606,0	75	170	85	200	60	60	4xM10x20	20	255	60	6xM10x20	60	100	300
CEB 030.300	S / K 30	300	600	180	662,0	90	205	100	200	75	75	4xM12x24	20	280	75	6xM10x20	65	110	300

All dimensions in mm.

TOX®-Presses CMB

order number	TOX®-Powerpackage	max. load-ing capacity kN	A	B	C	D	E	F	G	H	J	K	M	N	O	P	Q	Z
CMB 004.300	S / K 4	40	370	90	568,5	50	110	320	60	90,5	40	35	4xM8x16	20	165	30	6xM8x16	100
CMB 008.300	S / K 8	80	420	120	595,0	60	120	320	75	90,5	45	45	4xM10x20	20	190	40	6xM10x20	100
CMB 015.300	S / K 15	150	550	150	766,0	75	170	400	85	115,5	60	60	4xM10x20	20	255	60	6xM10x20	150
CMB 030.300	S / K 30	300	600	180	822,0	90	205	400	100	115,5	75	75	4xM12x24	20	280	75	6xM10x20	150

All dimensions in mm.

2-column presses

Series MB/MBG



Picture shows:
Flexible also available in custom sizes.

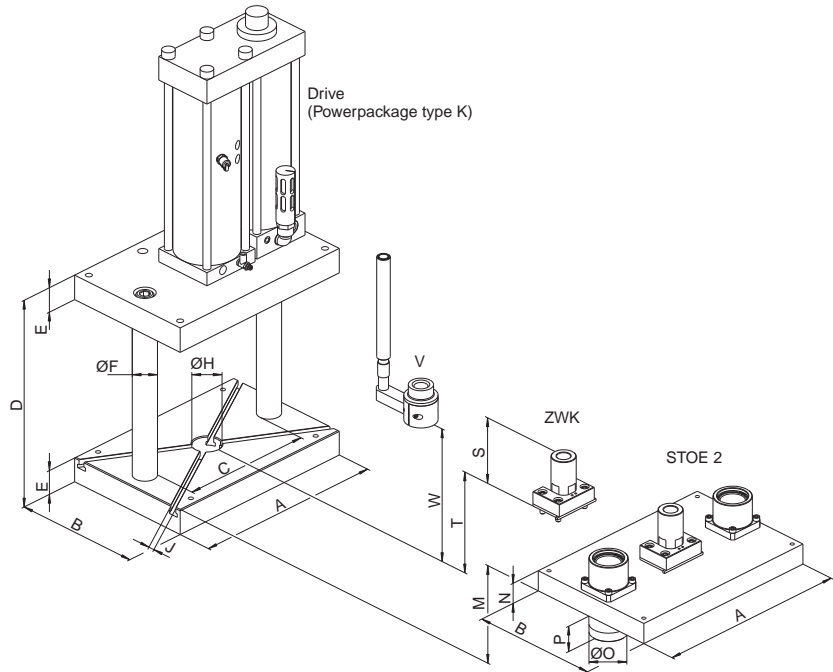
Example: press MB

consisting of:

- MB..... 2-column press
- Drive TOX®-Powerpackage S/K/KT/EPM
- UUM..... universal base frame (see page 15)
- STE safety control (see page 17)

Additional Accessories

- T-slot T-slots for bed
 - V..... anti-torsion lock
 - STOE 2 2-column ram guide
 - ZDO..... pressure switch
 - ZPS..... load cell
 - ZWK..... tool holding fixture
- Space requirement for safety elements see page 17



TOX®-Presses MB and MBG (MB = standard, MBG - large tool area)

order number	max. load capacity kN	TOX®-Powerpackage	A	B	C	D	E	ØF	ØH	optional T-slot J _{H12}	with ram guide				with tool holding fixture		with anti-torsion lock W	weight press kg	weight ram guide kg
											M	N	ØO	P	S	T			
MB 001	10	S / K 1	396	246	280	397,0	36	30	50	8	250	27	52	48	60	277	292	57	23
MB 002	20	S / K 2	396	246	280	399,0	36	30	50	8	250	27	52	48	60	277	292	57	23
MB 004	40	S / K 4	396	296	255	441,5	46	40	50	10	250	27	67	55	60	307	307	88	30
MB 008	80	S / K 8	446	296	300	517,0	56	40	60	10	300	36	67	46	70	356	346	119	43
MB 015	150	S / K 15	446	296	310	538,0	56	50	60	12	300	46	78	54	70	376	366	123	54
MB 030	300	S / K 30	446	346	285	579,0	76	60	60	12	300	46	93	79	110	346	366	194	66
MB 050	500	S / K 50	496	346	275	634,0	86	80	60	12	300	56	130	94	120	376	391	254	100
MB 075	750	S / K 75	646	496	375	812,0	116	100	60	18	350	76	157	99	150	486	500	625	237
MB 100	1000	S / K 100	696	496	370	882,0	136	125	60	18	350	86	185	129	160	526	550	819	295
MB 200	2000	S / K 170	796	546	400	1002,0	156	150	60	18	400	96	220	154	200	576	on request	1184	449
MBG 001	10	S / K 1	496	296	380	447,0	36	30	50	8	300	27	52	48	60	327	342	85	34
MBG 002	20	S / K 2	496	296	380	449,0	36	30	50	8	300	27	52	48	60	327	342	85	34
MBG 004	40	S / K 4	496	346	355	500,5	46	40	50	10	300	36	67	46	60	366	366	128	53
MBG 008	80	S / K 8	546	346	400	577,0	56	40	60	10	350	46	67	36	70	416	406	170	74
MBG 015	150	S / K 15	546	396	410	608,0	66	50	60	12	350	46	78	54	90	416	426	231	85
MBG 030	300	S / K 30	546	396	385	659,0	86	60	60	12	350	46	93	79	110	416	436	303	89
MBG 050	500	S / K 50	596	396	375	764,0	116	80	60	12	350	66	130	84	140	456	491	454	146
MBG 075	750	S / K 75	746	496	475	902,0	136	100	60	18	400	76	157	99	160	546	570	835	268
MBG 100	1000	S / K 100	796	546	470	972,0	156	125	60	18	400	86	185	129	180	576	620	1152	357
MBG 200	2000	S / K 170	896	596	500	1092,0	176	150	60	18	450	96	220	154	220	626	on request	1608	527

All dimensions in mm.

4-column presses

Series MA/MAG



Picture shows:
Rigid construction 4-column presses.
Flexible also available in custom sizes.

Example: press MA

consisting of:

MA..... 4-column press

Drive TOX®-Powerpackage
S/K/KT/EPM

UUM..... universal base frame (see page 15)

STE safety control (see page 17)

Additional Accessories

T-slot..... T-slots for bed

V..... anti-torsion lock

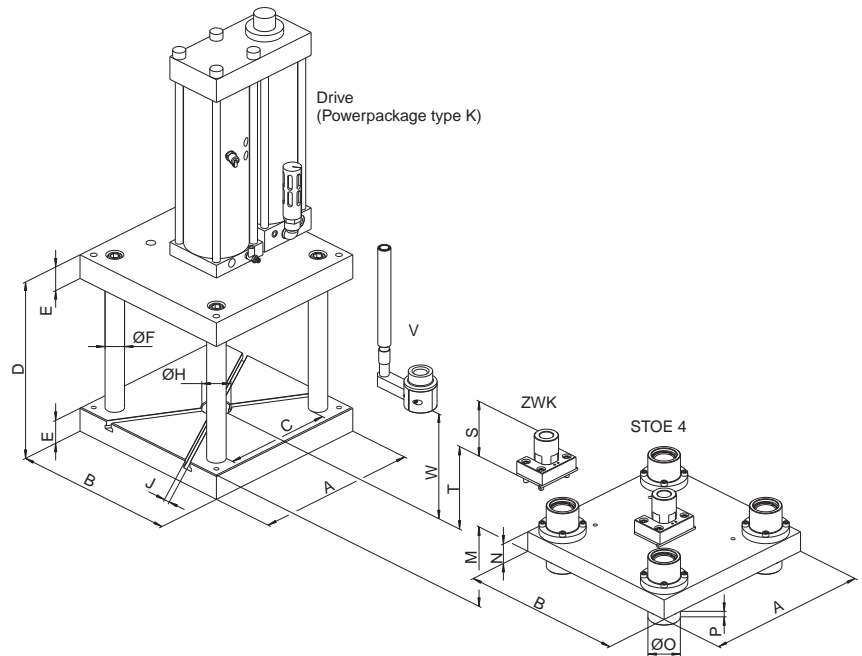
STOE 4 4-column ram guide

ZDO..... pressure switch

ZPS..... load cell

ZWK..... tool holding fixture

Space requirement for safety elements see page 17



TOX®-Presses MA and MAG (MA = standard, MAG - large tool area)

order number	max. loading capacity kN	TOX®-Powerpackage										optional T-slot				with ram guide				with tool holding fixture		W*	weight press kg	weight ram guide kg
			A	B	C	D	E	ØF	ØH	J _{H12}	M	N	ØO	P	S	T								
MA 001	10	S / K 1	246	246	150	383,0	27	25	50	8	250	22	45	33	60	270	287	29	14					
MA 002	20	S / K 2	246	246	150	385,0	27	25	50	8	250	22	45	33	60	272	287	29	14					
MA 004	40	S / K 4	296	296	190	410,5	36	30	50	10	250	36	52	39	60	286	286	55	29					
MA 008	80	S / K 8	346	346	205	507,0	46	40	60	10	300	46	67	36	70	356	346	99	52					
MA 015	150	S / K 15	396	396	255	528,0	56	40	60	12	300	46	67	36	70	366	356	148	65					
MA 030	300	S / K 30	446	446	305	579,0	66	50	60	12	300	56	78	44	110	356	376	225	98					
MA 050	500	S / K 50	496	496	330	614,0	76	60	60	12	300	66	93	59	120	366	381	321	141					
MA 075	750	S / K 75	646	646	420	772,0	116	80	60	18	350	76	130	74	150	446	460	815	293					
MA 100	1000	S / K 100	696	696	420	862,0	136	100	60	18	350	86	157	89	160	506	560	1140	400					
MA 200	2000	S / K 170	796	796	465	982,0	156	125	60	18	400	96	185	119	200	556	request	1739	603					
MAG 008	80	S / K 8	446	446	305	577,0	56	40	60	12	350	46	67	36	70	416	406	188	80					
MAG 015	150	S / K 15	446	446	305	628,0	76	40	60	12	350	56	67	26	90	426	436	249	95					
MAG 030	300	S / K 30	596	596	455	699,0	96	50	60	12	350	76	78	24	110	446	466	554	219					
MAG 050	500	S / K 50	596	596	430	754,0	116	60	60	12	350	76	93	49	140	446	481	675	224					
MAG 075	750	S / K 75	746	746	520	872,0	136	80	60	18	400	86	130	64	150	526	540	1259	417					
MAG 100	1000	S / K 170	796	796	520	912,0	136	100	60	18	400	86	157	89	160	556	580	1471	501					
MAG 200	2000	S / K 170	896	896	565	1032,0	156	125	60	18	450	96	185	119	200	606	request	2172	731					

All dimensions in mm.

* with anti-torsion lock

C-frame presses

Series CEU



Picture shows:
 A most flexible steelframe press frame, solid and stable. Suitable for production tasks as well as for the laboratory. The lower press bed is adjustable within 400 mm and can be dismantled.
 Drive: TOX®-Powerpackage in Z version, with total stroke adjustment.

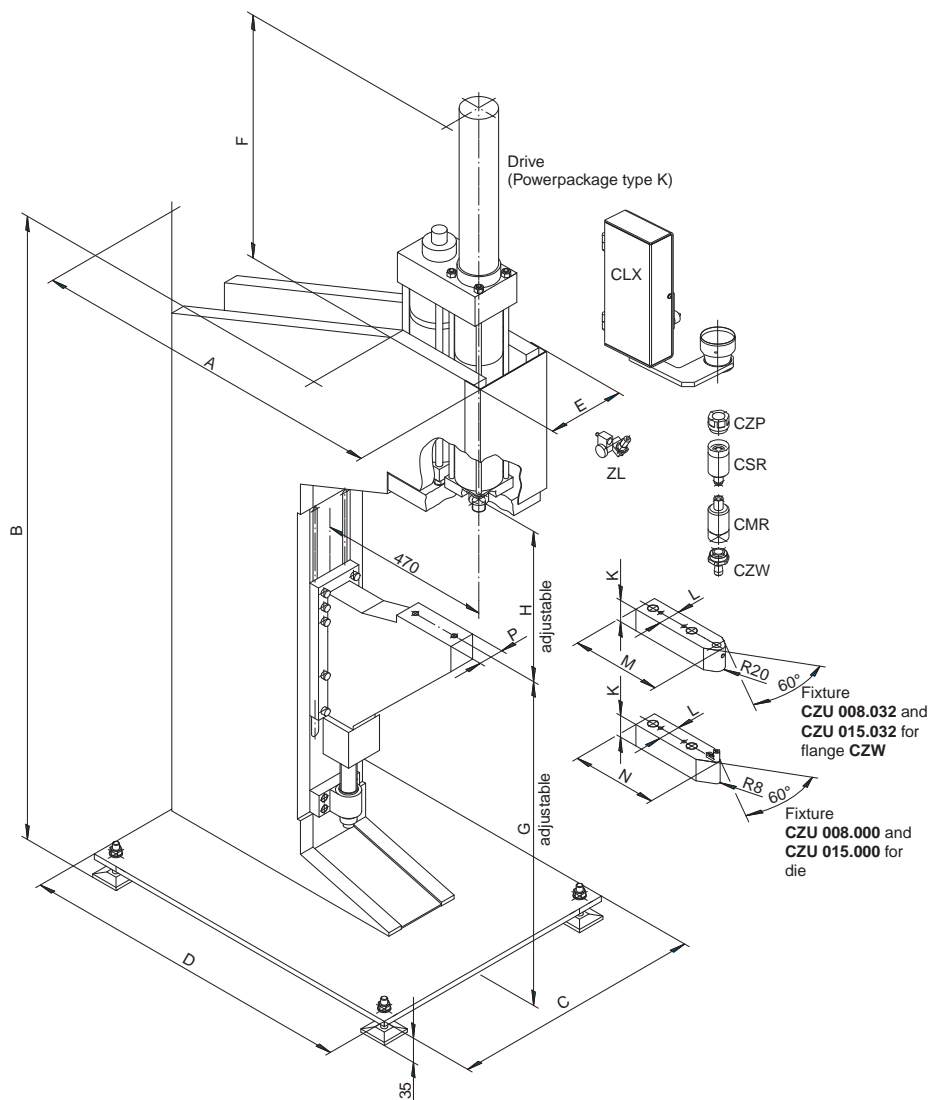
Example: press CEU

consisting of:

- CEU..... TOX®-Press
- Drive TOX®-Powerpackage S/K/KT/EPM
- CLX safety device (see page 16)
- STE safety control (see page 17)
- CSR..... punch stripper
- CZP fixture
- CMR die stripper
- CZW fixture
- CZU fixture

Additional Accessories

- ZL..... target feature with light spot (see page 16)
- ZPS load cell



TOX®-Presses CEU

order number	max. press force kN	TOX®-Powerpackage	A	B	C	D	E	F	G min.	G max.	H min.	H max.	K	L	M	N	P
CEU 008.000	75	S / K 8	975	1710	700	935	210	678	790	1090	220	520	60	60	250	238	70
CEU 015.000	140	S / K 15	1125	1835	800	1045	280	905	800	1100	237	537	80	90	320	308	90

Special designs on request.

All dimensions in mm.

C-frame presses

Series CEC



Picture shows:
Stable economical cast iron
construction with large working area.

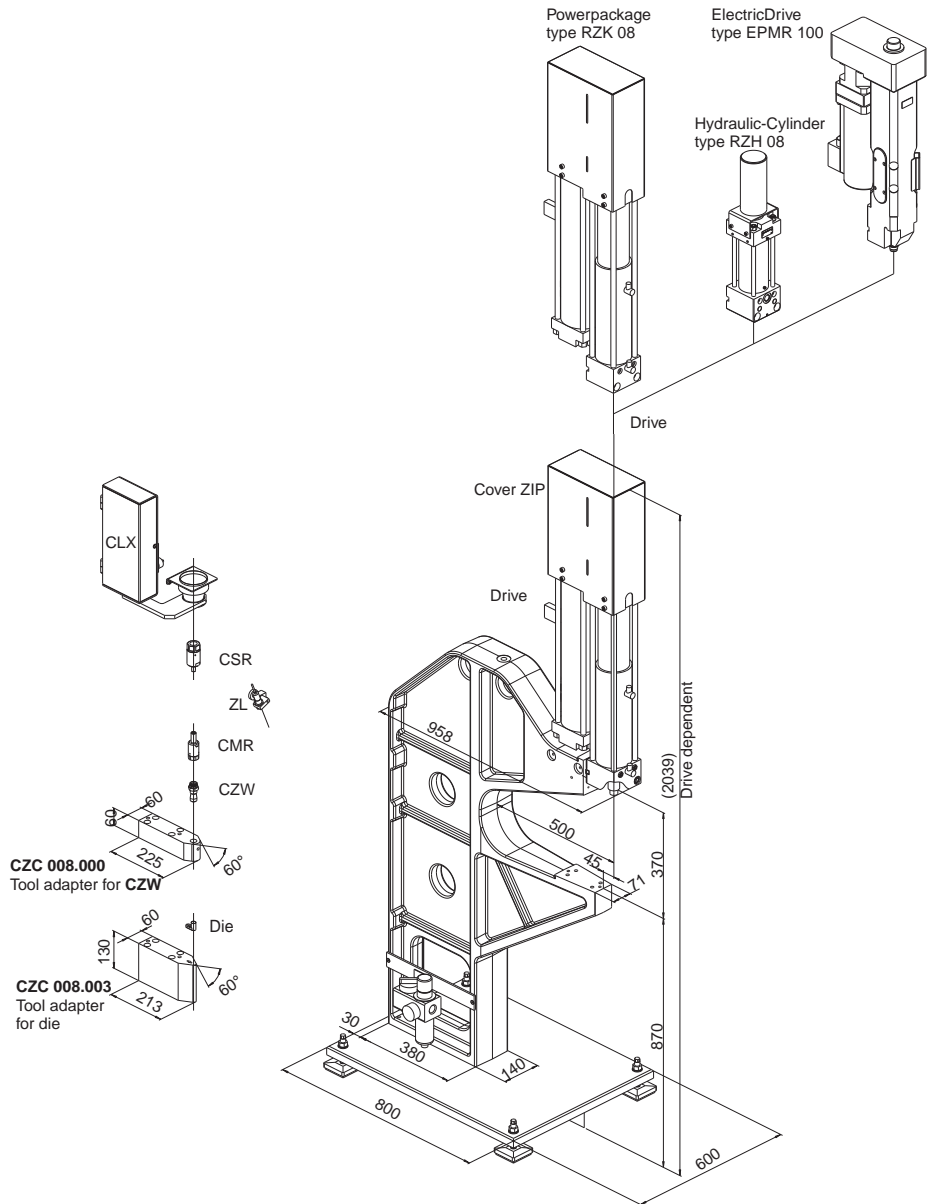
Example: press CEC

consisting of:

- CEC..... TOX®-Press
- Drive TOX®-Powerpackage
RZK/RZH/RZS/EPMR
- CLX safety device (see page 16)
- STE safety control (see page 17)
- CSR..... punch stripper
- CZP fixture
- CMR die stripper
- CZW fixture
- CZC..... fixture

Additional Accessories

- ZL..... target feature with light spot
(see page 16)



TOX®-Press CEC

order number	max. press force kN	TOX®-Powerpackage
CEC 008.100	84	RZK 08

Modular C-frame programme

Series CEJ



Picture shows:
Flexible modular system provides a universal upright press.

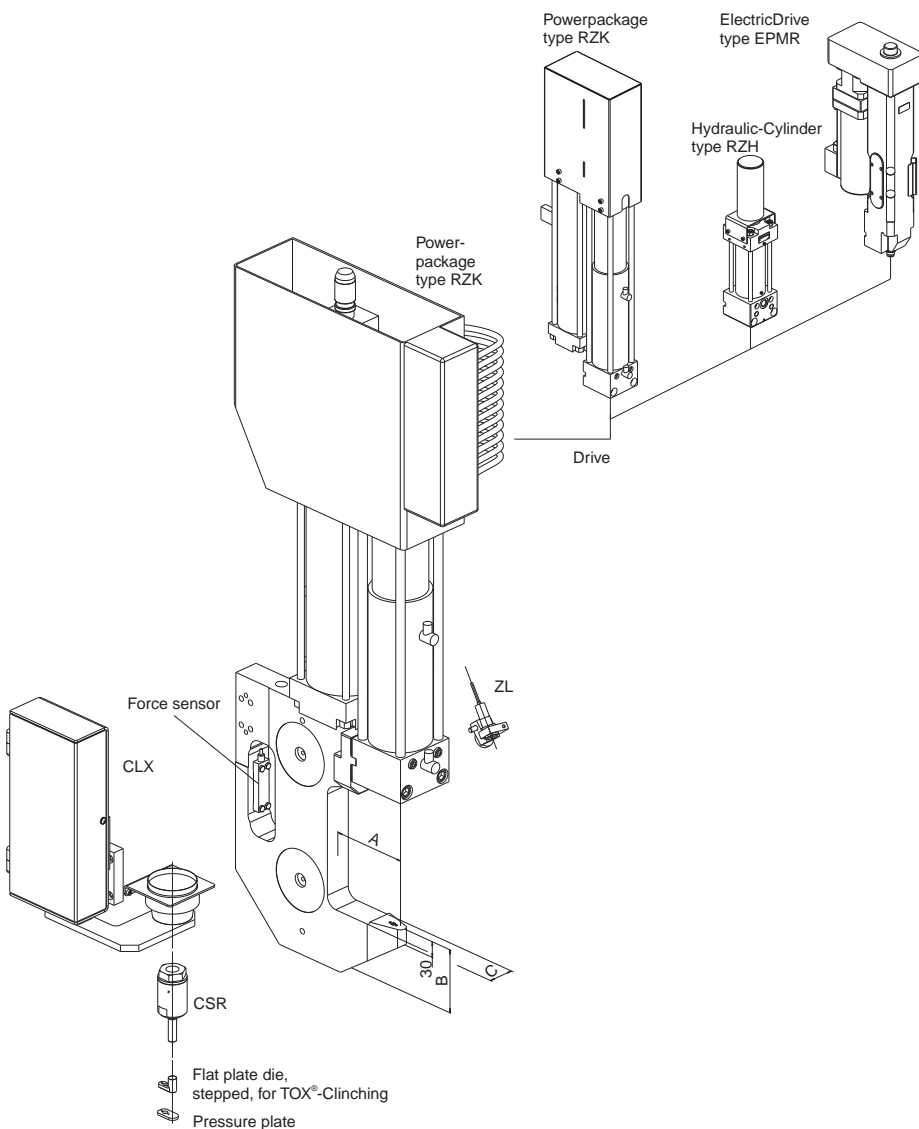
Example: bracket CEJ

consisting of:

- CEJ bracket
- Drive..... TOX®-Powerpackage RZK/RZH/RZS/EPMR
- CER..... support for holding the CEJ
- CLX safety device (see page 16)

Additional Accessories

- STE safety control (see page 17)
- CZP holding fixture
- CSR..... punch stripper
- ZKF coupling flange
- ZL..... target feature with light spot (see page 16)

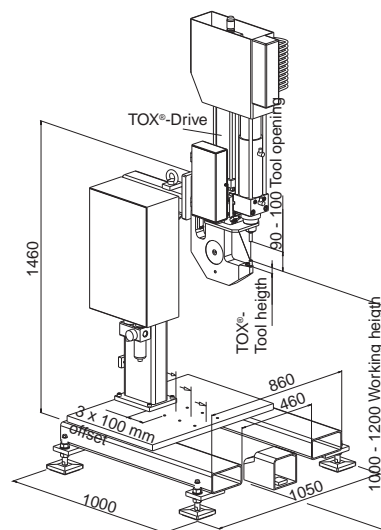


Press CEJ:

The C-frames can be designed according to the requirements. The press force, tool geometry or tool adapters can be changed as required.

Support CER:

Of solid welded construction with large open space so that the C-frame CEJ can be mounted in such a way that an optimal handling of the component by the operator is possible.



CEJ 50

order number	max. press force kN	stroke	A	B	C
CEJ 50.100	50	100	100	75	40
CEJ 50.150	50	100	150	115	40
CEJ 50.200	50	100	200	145	40

All dimensions in mm.

CEJ 80

order number	max. press force kN	stroke	A	B	C
CEJ 80.100	80	100	100	85	50
CEJ 80.150	80	100	150	120	50
CEJ 80.200	80	100	200	165	50

All dimensions in mm.

Universal base frame UUM



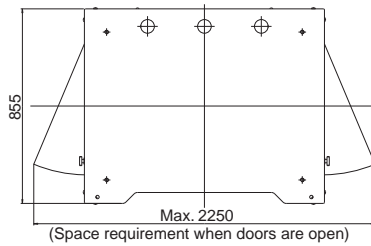
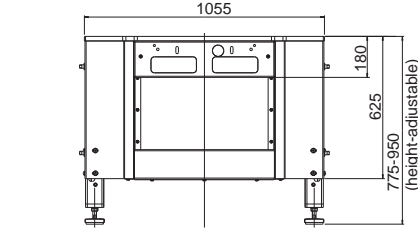
On request, UUM custom versions or welded constructions in all sizes can be built.

Standard colour: TOX® green

Order Example:

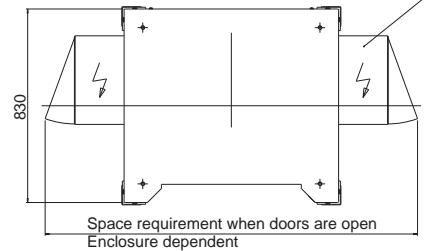
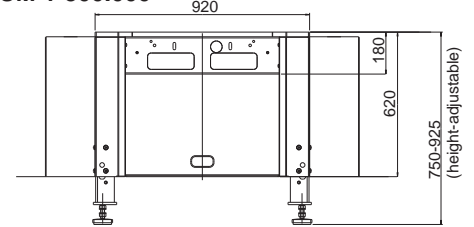
UUM 500.100.
 Execution
 Frame type

UUM 500.100



- Table size: 1055 x 855 mm
 Table height: 775 - 950 mm adjustable
 Load capacity: max. 1000 kg total press weight
 Weight: 250 kg
- Accepts 2-hand control panels: STE 003; STE 325; STE 336 and pneumatic control panel STP 03.
 - Integrated cabinets at both sides (optional: side mounted)

UUM 1-300.000



Option:
 Enclosure for
 electrics/pneumatics

- Table size: 920 x 830 mm
 Table height: 750-925 mm adjustable
 Load capacity: max. 500 kg total press weight
 Weight: 185 kg
- Accepts all TOX® control modules
 - Enclosures can be mounted on sides



Example: press made up of standard components mounted on a universal base UUM.

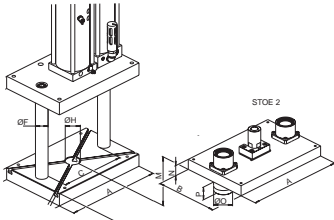


Example: Table of welded construction for PC press.

Accessories

Different kinds of accessories are offered for the TOX®-Presses:

A: depending on press type



described in the press specific pages
e.g. STOE, ZMS, CZU, CER, ZFS, T-slot

B: Sensors, controls and process monitoring systems

e.g. STE, ZPS (see catalog: TOX®-Controls)



C: Specially tailored to the TOX®-Drives



e.g. ZDO, ZMS (see data sheet 10.00 TOX®-Powerpackage)

D: Tooling and process specific
e.g. for the TOX®-Clinching

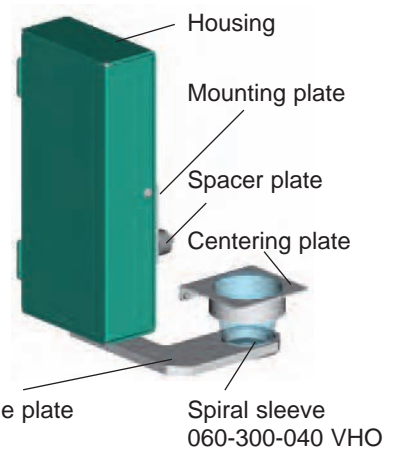
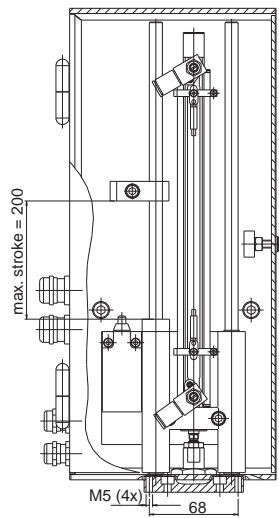
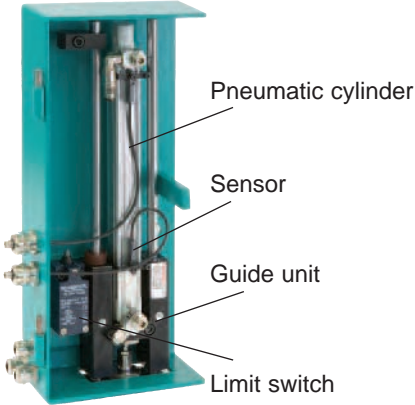


e.g. CZP (see data sheet 80.100 TOX®-Joining-Systems)

E: Specially adapted to the building-block principle of the presses, for added safety and handling compatibility:

Safety device CLX

Housing



Note:
Mounting plate, spacer plate, centering plate and guide plate are dependent on the machine type.

The TOX® safety device CLX is a standard component of the foot pedal control STE 317-... . It can also be used with 2-hand controls in place of perimeter guarding.

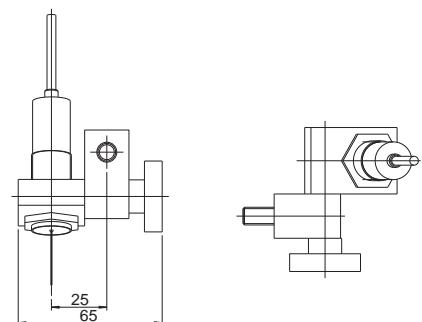
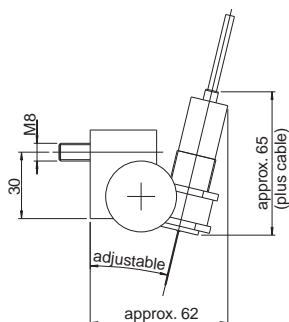
Function:
After actuating the start key, the pneumatic cylinder inside the housing extends forward. The guide plate advances towards the piecepart. The spiral sleeve rings provide protection around the tooling area. Once the

guarding has reached its bottom position, the sensor sends a signal to the press drive via the limit switch. This initiates the working stroke without any risk to the operator.

Order Description: CLX

Target feature with light spot ZL

Targeting device for precise positioning of TOX®-Clinch points, by adjustable laser beam to the die centre.
Order Description: ZL



TOX® Press Safety

The TOX® modular kit system offers the opportunity to acquire a CE-conforming machine or simply assemble the machine from TOX® components.

A safe press which comes up to the standards, needs several additional safety elements. Their space requirement and integration in the controls must often be taken into consideration already at the time of design.

TOX®-Safety guard enclosure SU

For the TOX®-presses and base frames we offer appropriate three-sided guards. The standard execution comprises an aluminium frame with polycarbonate filling or perforated plate.

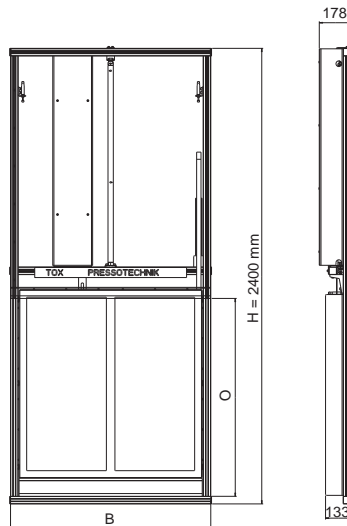
It is possible to protect the loading side by light barriers or by a safety guard door. When ordering as separate accessory, please state dimensions or add a

drawing of the press or base frame. **Order number:** SU, width, depth, height

TOX®-Safety guard door SUT

The TOX®-Safety guard door SUT separates the tool area from the operator. The door is equipped with all control components (electric and pneumatic) for integration in the plant controls. An intermediate stop position is available as option. Stroke (O) = 600, 800, 1000 mm, guard door height (H) = 2400 mm, guard door width (B) = 800 – 1500 mm (100 mm graduation)

It is also possible to order the SUT separately as accessory. **Order number:** SUT, B =



Safety guard enclosure SU with safety guard door SUT

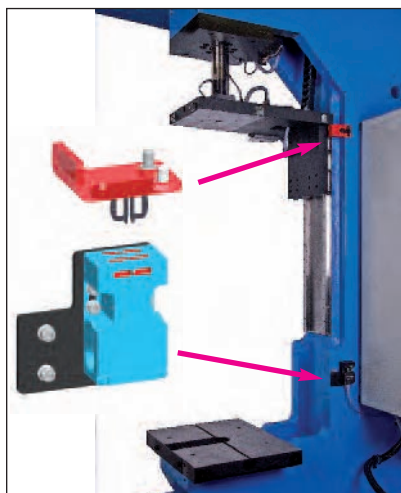
TOX®-Restraint device ZHE

The TOX®-Restraint device prevents the lowering of the ram by its own weight during maintenance or repair work. A safety switch integrated in the Emergency Stop circuit fulfills the requirements of the press standards. Two design variants are offered:

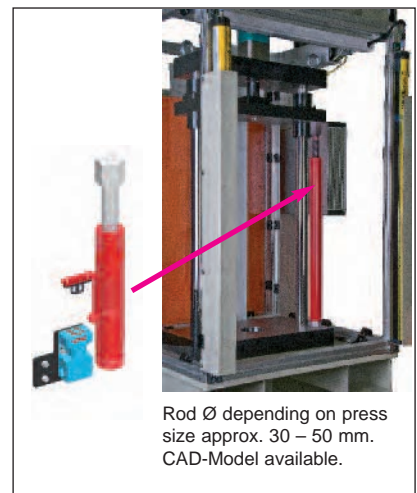
The **angle variant ZHE 000** is mounted to the side of the press frame. As it is located outside the tool area, the space requirement is not of the importance. (For TOX®-Presses type MC, MCC and CMB.) The **rod variant ZHE 016 / 030** is mounted direct between base and ram plate. Its design depends on the moving mass to be supported and the clearance height. This must be taken into consideration for the dimensioning of the tool. (For TOX®-Presses type PC, MB, MBG, MA and MAG.)

Both variants have their parking position outside the tool area.

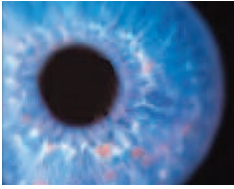
Angle variant



Rod variant



Rod Ø depending on press size approx. 30 – 50 mm. CAD-Model available.



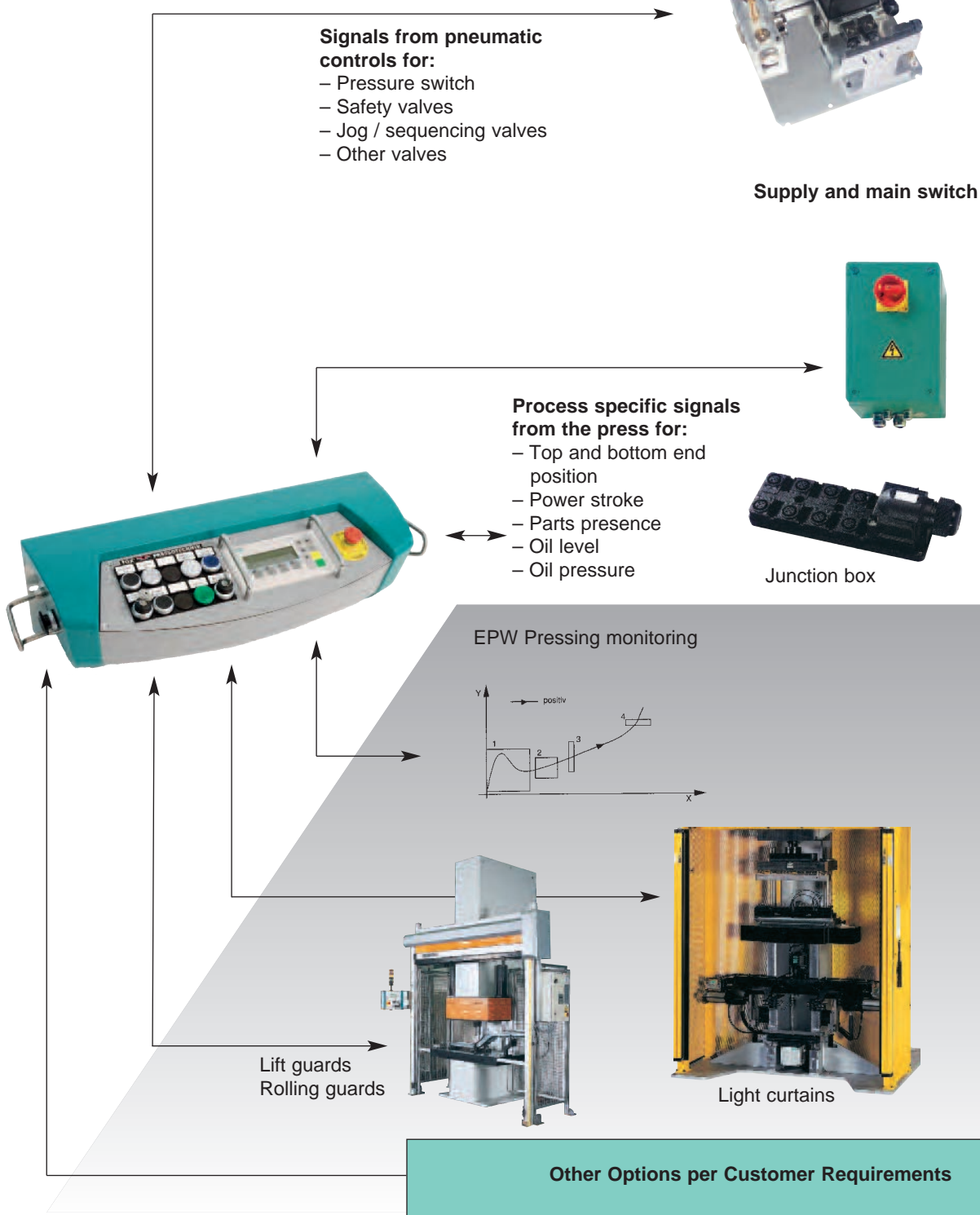
TOX®-Controls

See "TOX®-Controls" catalog for detailed information

NETWORK

TOX^{soft}Ware
 Ethernet
 Interbus/ProfiNet/Profibus
 RS 232/485
 PLC

Any TOX®-Safety Controls and Process Monitoring Systems can be ordered as separate accessories (see brochure TOX®-Controls).



Basic Components of the TOX®-Controls

Integration of Optional Machine Components

Some samples of many applications:



TOX®-Press type MB



TOX®-Press type PC



TOX®-Press type CEJ



TOX®-Press type CMB



TOX®-Press type CMM



Our Worldwide Sales and Service Network

Product Range

TOX®-Powerpackage



TOX®-PowerKurver



TOX®-ElectricDrive



TOX®-FinePress



TOX®-Presses



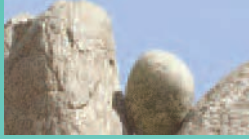
TOX®-Controls
TOX®-Monitoring



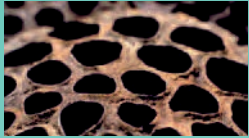
TOX®-Joining-
Systems



TOX®-Tongs



TOX®-Punching
TOX®-Coining



TOX®-Press-Fitting



TOX®-Production
Systems



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