



STENHØJ



INTO THE FUTURE

H- & C-frame Production Presses



Welcome to the world of Stenhøj



Flexibility



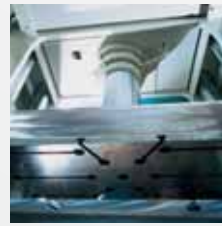
Progressiveness



Effectiveness



Positivity



Reliability



Strength of will

STENHØJ HYDRAULIK A/S

– part of a large international group.

Since its foundation in 1917 STENHØJ has manufactured and marketed advanced and innovative products for the automotive industry. Each year offers a new set of challenges, and we thrive on them.

Fortunately we are not alone – as part of the Stenhøj Group with a worldwide staff of approx. 700 employees in more than 15 companies we have an excellent base, and so we are always ready to take on new challenges.

At Stenhøj Hydraulik A/S we specialise in the manufacture of hydraulic presses, electro-mechanical broaching machines and special-purpose machines for the industry.

Our longstanding experience enables us to continuously develop improved and custom-engineered machines.

Our Mission is based on our ambition to optimise STENHØJ's position in the global market. We will fulfil our customers' needs for processing machines. We will provide market-adapted solutions supplying added value through competent counselling and excellent service.

Our Vision is to have continuous influence on market developments. We will continue to improve our customers' experience of the value of every single order and of the business relationship in general. Through enterprising, creative and proactive conduct of business, STENHØJ will be the preferred partner in the targeted market and product areas.

Our concept is based on expert knowledge; we have something to be proud of – competent and committed employees. Dedicated to finding solutions to the needs of our customers.



Hydraulic Production Presses



Since 1932, Stenhøj Hydraulik has manufactured hydraulic presses for workshops and industrial production. Since 1960, a substantial percentage of these presses have been delivered to export markets.

Our range of production presses has been developed over several years. Thanks to our longstanding experience we have delivered many custom-engineered solutions during the years; the challenge of every single one has been solved with our creative concepts. Our customers' acknowledge this, and over the years we have built close relationships with our many customers throughout the world.

Our programme ranges from 25 t to 2000 t – H-frames or C-frames. Presses are available in many different sizes and with different features. Our solutions always focus on the customer's needs.

For many years we have developed some of the world's best production presses – and we intend to keep on doing that!

Our production presses are used for series production. In co-operation with our customers we identify the production problem, and on the basis of that we design the perfect solution. It goes without saying that we provide training in using the individual machines to ensure that our customers are well prepared to operate them.

Experience in press-building

When a company has built as many presses as STENHØJ, then at some point a specialist is born. And this is precisely the claim that we can make about ourselves. Since 1956 we have been producing production presses and improving them year after year.

We modify them according to the wishes of our customers and use the experience gained in the further development of our products.

The result is that STENHØJ production presses provide our customers with total reliability.

Production Presses, H-frame

Presses with tradition and a future

Advantages of Production-presses

The presses have a modular design. Therefore STENHØJ presses can be individually adapted to the specific requirements of our customers and this flexibility is available right from the lower priced simpler presses up to complex high tech systems. This means only as much “machine” as the user requires.

Customised model

Should your application demand alternations to the die installation height, clamping surface, stroke length; require alternative control options; or call for other special electrical or additional hydraulic equipment, we can offer you an extensive range of special equipment.

Press frames

Changing press forces influence the press frame. Therefore our presses have a solid, bend-free welded steel design. The frame is made in one piece, and being rigid and fracture free therefore has the required high stability.



Cylinder and guidance

Exact guiding and good seal components are important for press cylinders. For this purpose we use high quality, expertly processed steel tube having a cylinder surface which is either roller polished or honed.

The piston rod is ground and hard chrome plated. The special low wear material of the guide bushing between the piston and the cylinder ensures precise guidance.

This guarantees our presses – together with reliable, low-wear and proven seal elements – a long working life.

Ram specifications (PP)

Depending on the working task requirements, our customers may choose between four ram constructions.

The ram plates are respectively equipped with T-slots and shank screw for accepting the die. For clamping dies having large surface areas, for higher guide accuracy and high-quality torsion protection, the ram plate is available with 2 or 4 guide columns.

For the ultimate stability and most exact guiding for cases involving offcentre loads – according to the application – the customer has the choice between a ram plate or a ram in a welded box construction with a guide system having 4 columns fed right through. In both versions the guide columns are respectively built right through from the upper yoke to the lower yoke.

Bed plate and ram plate

The well dimensioned bed plate is equipped with T-slots for clamping the dies.

The ram plate is guided by two strong columns and has a shank screw for positioning the die.

Operational ergonomics

A modern concept and mature design are pre-conditions for optimal ergonomics.

Therefore we have placed all the operating controls in visible and accessible positions, so that machine operation is not only simple and safe, but also ergonomic by nature.

Application areas

STENHØJ LP-presses are used for small, medium and large production run in all various fields, such as

- Deep Drawing
- Stamping
- Bending
- Assembling
- Coining
- Straightening
- Deburring.

Application industries

- The automobile industry and its suppliers
- Electric and household appliance industries
- Sheet metal and plastic processing industries
- Steel and metal industries
- Stamping contractors and die-making machine factories
- Foundries
- Fitting shops
- Technical colleges and universities, etc.



Production Presses, H-frame

Hydraulics – an efficient drive system

The hydraulic power unit located at the rear of the press, is easily accessible and service friendly.

The pump system in the standard version is equipped with a 2 stage pump unit.

A high pressure pump is used for high press forces.

The delivery quantity for fast feed and the low pressure speed is achieved using a low pressure pump, having a pressure-dependent or distance-dependent switch-off.

In this way only a minimal amount of drive power is required at full press force.

With high performance machines the pump system can be supplied with a variable displacement pump.

Pump noise is minimised by mounting the pumps directly in the oil reservoir .

The valves are mounted in a compact block form – positioned on the oil reservoir – and are conceived as a safety control fulfilling the current safety regulations.

Electrical control

The control must be user and operator friendly. The relay controls in our LP-presses take this into account.

And naturally they comply with the European standard EN 60204 and the most recent safety

regulations according to the European health and safety regulations.

According to the safety requirements the control is fitted with 2 channels for monitoring the operation and stop functions.

The large-dimensioned switching cabinet is mounted on the press side support.

Inside are all the electrical control elements installed fully visible and easily accessible.

The different functions of the LP-presses are switched via a panel mounted key switch.

The operation modes are:

- **Inching**
- **2-hand-operation**

As options the operational modes:

Foot mode (FB)

Via foot pedal with cable,

Automatic mode (AU)

With control link for peripheral units and

Operation with light guard (LG)

are available.

Press force regulation

The desired press force can be set finely and infinitely using the pressure control valve located under the gauge.



The press force is displayed on a glycerine damped gauge which is graduated in tons and kN. The gauge can be disconnected via an isolator valve.

Stroke setting

The graduated scale for the stroke setting – consisting of three cams – is located on the front of the press. On the middle and right scales the upper and lower stop positions can be infinitely set. The left scale serves to switch from approach speed over to press mode. The setting of the scale lever is carried out using an allen key during the set-up operation.

Programmable control

For customers who need more control, programming and data storage our company offers 2 versions: TP177 and MP277. The control system which are based on Siemens' PLC equipment and enables the press forces, speeds, and positions in 1, 2 or 3 axes to be preprogrammed. (Subject to version). The speeds can be selected either in fixed steps or

steplessly – depending upon which hydraulic unit is in use. The MP277 is freely programmable which means that the potential of a modern multi-axes press can be fully exploited.

The control panel with its part and full graphic displays offers comfortable machine monitoring. Softkeys and function keys enable safe and efficient operation.

The functions of the press are continuously displayed as well as operational and error messages. Error messages are given out in text form in the language respectively selected by the operator.

Programming faults are immediately signalled and can be effortlessly corrected.

The extended die cushion functions enable a distance-dependent variable die cushion pressure. In this way the die cushion function can be optimised. Peripheral equipment, e.g. coil feed, can be exactly controlled using programmable inputs and outputs.



Speeds

(K) 2 x constant pump system		LP 25	LP 40	LP 60	LP 100
Rapid appr. speed – diff. coupling	mm/s	195	179	168	94
Pressing speed – low press	mm/s	95	83	79	46
Force	kN	55	85	140	315
Pressing speed – high press	mm/s	18	20	19	15
Force	kN	250	400	600	1000
Return speed – low press	mm/s	187	154	151	91
Force	kN	30	45	75	160
Return speed – high press	mm/s	36	36	36	30
Force	kN	125	215	315	510
Drive power	kW	5,5	7,5	11	15

(V) Variable pump system		LP 25	LP 40	LP 60	LP 100	LP 150	LP 200	LP 300	LP 400
Rapid approach speed	mm/s			0-234	0-145	0-98	0-108	0-88	0-104
Pressing speed – low press	mm/s			0-110	0-71	0-49	0-55	0-42	0-51
Force	kN			0-135	0-260	0-610	0-676	0-1280	0-1450
Pressing speed – high press	mm/s			110-25	71-22	49-20	55-19	42-18	51-19
Force	kN			135-600	260-1000	610-1500	676-2000	1280-3000	1450-4000
Return speed – low press	mm/s			0-210	0-139	0-99	0-112	0-82	0-100
Force	kN			0-70	0-162	0-264	0-338	0-664	0-743
Return speed – high press	mm/s			210-48	139-44	99-40	112-38	82-35	100-36
Force	kN			70-315	162-510	264-650	338-1000	664-1550	743-2030
Drive power	kW			15	22	30	37	55	75

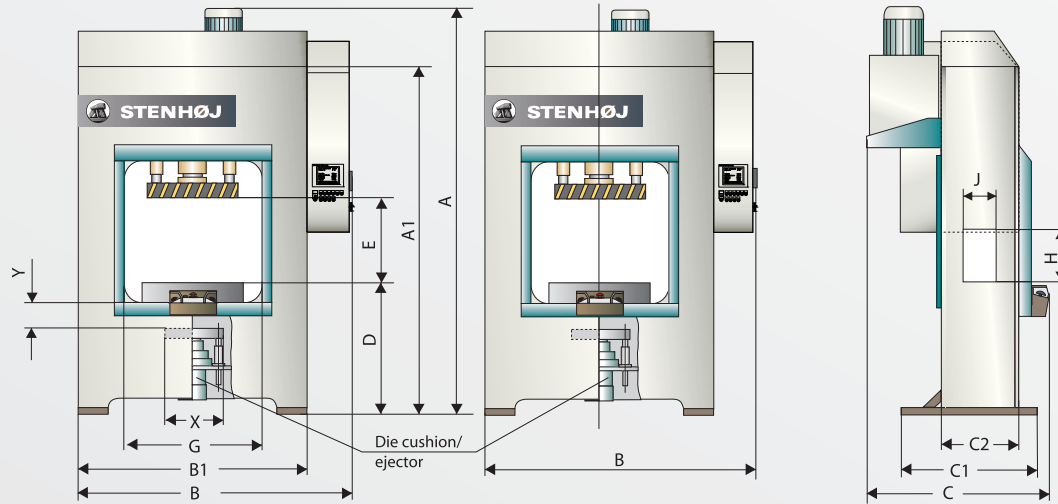
(V-IL) Variable pump system		LP 25	LP 40	LP 60	LP 100	LP 150	LP 200	LP 300	LP 400	LP 500	LP 600
Rapid approach speed	mm/s			0-400	0-400	0-350	0-400	0-380	0-380	0-320	0-320
Pressing speed – low press	mm/s			0-110	0-71	0-49	0-55	0-42	0-51	0-40	0-33
Force	kN			0-135	0-260	0-610	0-676	0-1280	0-1375	0-1740	0-2150
Pressing speed – high press	mm/s			110-25	71-22	49-20	55-19	42-18	51-19	40-15	33-12
Force	kN			135-600	260-1000	610-1500	676-2000	1280-3000	1375-4000	1740-5000	2150-6000
Return speed – low press	mm/s			0-400	0-370	0-300	0-400	0-380	0-330	0-300	0-285
Force	kN			0-35	0-55	0-95	0-95	0-138	0-227	0-249	0-250
Return speed – high press	mm/s			400-141	370-115	300-125	400-134	380-169	330-191	300-171	285-100
Force	kN			35-105	55-300	95-235	95-275	138-183	227-391	249-435	250-690
Drive power	kW			15	22	30	37	55	75	75	75

Die cushion – model TU3		LP 25	LP 40	LP 60	LP 100	LP 150	LP 200	LP 300	LP 400	LP 500	LP 600
Die cushion/Ejector		16 ton	25 ton	40 ton	40 ton	60 ton	100 ton	150 ton	200 ton	200 ton	200 ton
Rapid approach speed	mm/s	200	195	130	130	127	103	70	50	50	50
Pressing speed – low press	mm/s	99	95	61	61	60	50	35	25	25	25
force	kN	35	55	86	86	120	204	294	400	400	400
Pressing speed – high press	mm/s	24	18	11	11	12	12	8	6	6	6
force	kN	160	250	400	400	600	1000	1500	2000	2000	2000
Return speed – low press	mm/s	194	187	113	113	114	99	70	52	52	52
force	kN	18	30	46	46	64	104	145	196	196	196
Return speed – high press	mm/s	47	36	22	22	22	24	17	12	12	12
force	kN	81	125	215	215	315	509	745	980	980	980
Drive power	kW	4	5,5	5,5	5,5	7,5	11	11	11	11	11

Subject to change without notice

Main dimensions

LP model standard with 2 or 4 columns

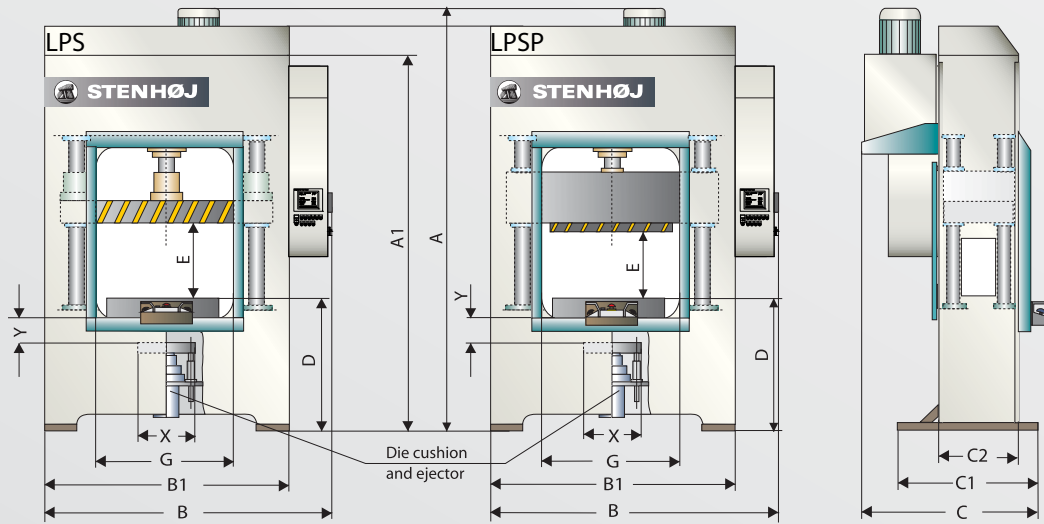


Production presses		LP 25	LP 40	LP 60	LP 100	LP 150	LP 200	LP 300	LP 400	LP 500	LP 600
Type LP standard											
Press force	kN	250	400	600	1000	1500	2000	3000	4000	5000	6000
Total height approx.	A	mm	2950	2950	3150	3200	3800	3850	4150	4350	4450
Frame height	A1	mm	2460	2460	2660	2700	3190	3230	3650	3810	3910
Total width approx.	B	mm	1745	1745	2200	2200	2450	2550	2850	2950	3150
Frame width	B1	mm	1400	1400	1650	1650	1900	2000	2300	2400	2600
Total depth approx.	C	mm	1200	1200	1250	1300	1600	1600	1900	1950	2150
Feet depth of press	C1	mm	800	800	860	910	1200	1200	1330	1350	1600
Frame depth	C2	mm	440	440	480	530	680	680	830	850	1000
Bed height above floor	D	mm	900	900	900	900	1100	1100	1200	1300	1360
Daylight max.	E	mm	470	500	600	600	750	750	850	850	850
Width between verticals	G	mm	1000	1000	1200	1200	1300	1300	1500	1500	1500
Window height	H	mm	200	200	300	300	400	400	500	500	500
Window width	J	mm	220	220	320	320	420	420	420	420	420
Stroke	S	mm	300	300	400	400	400	400	500	500	500
Weight approx.		kg	1700	1700	2500	3000	5700	7500	11500	14500	24500
Die cushion and ejector											
Model TU3 – option											
Die cushion force	kN	160	250	400	400	600	1000	1500	2000	2000	2000
Ejector force	kN	160	250	400	400	600	1000	1500	2000	2000	2000
Die cushion plate WxD	X	mm	300	300	400	400	500	500	600	600	600
Die cushion stroke	Y	mm	150	170	180	180	200	200	200	200	200
Weight incl. die cushion and ejector, approx.		kg	1800	1900	2800	3300	6200	8000	12300	15500	25500

Subject to change without notice

Main dimensions

LPS model with ram plate, through-guided / LPSP model with ram in a welded box construction, through-guided



Production presses - Type LPS with ram plate, through-guided

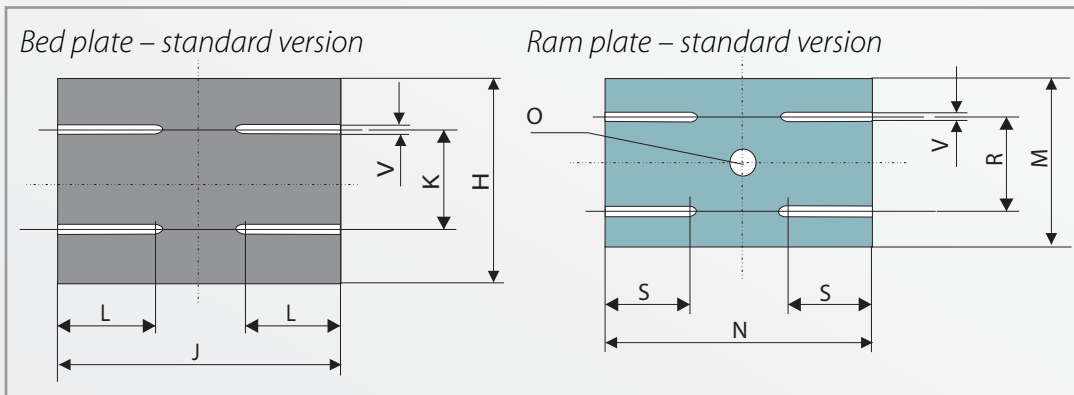
		LPS 25	LPS 40	LPS 60	LPS 100	LPS 150	LPS 200	LPS 300	LPS 400	LPS 500	LPS 600
Press force	kN	250	400	600	1000	1500	2000	3000	4000	5000	6000
Stroke	mm	300	300	400	400	400	400	500	500	500	500
Total height approx.	A	mm	3000	3000	3300	3400	3950	4050	4350	4450	4650
Frame height	A1	mm	2515	2515	2830	2870	3370	3410	3850	3910	4110
Total width approx.	B	mm	2050	2050	2300	2300	2550	2550	2850	2950	3150
Frame width	B1	mm	1500	1500	1750	1750	2000	2000	2300	2400	2600
Total depth approx.	C	mm	1200	1200	1250	1300	1550	1550	1900	1950	2150
Feet depth of press	C1	mm	800	800	860	930	1200	1200	1330	1350	1600
Frame depth	C2	mm	440	440	480	550	700	700	830	850	1000
Bed height above floor	D	mm	900	900	1000	1000	1200	1200	1300	1300	1360
Daylight max.	E	mm	470	500	600	600	750	750	850	850	850
Width between verticals	G	mm	1000	1000	1200	1200	1300	1300	1500	1500	1500
Weight approx.	kg	2400	2400	4000	4600	8200	10000	16500	20000	30000	36000

Production presses - Type LPSP with ram in a welded, through-guided

		LPSP 25	LPSP 40	LPSP 60	LPSP 100	LPSP 150	LPSP 200	LPSP 300	LPSP 400	LPSP 500	LPSP 600
Press force	kN	250	400	600	1000	1500	2000	3000	4000	5000	6000
Stroke	mm	300	300	400	400	400	400	500	500	500	500
Total height approx.	A	mm	3275	3275	3700	3750	4400	4500	4900	4950	5150
Frame height	A1	mm	2785	2785	3190	3230	3830	3870	4390	4450	4650
Total width approx.	B	mm	2045	2045	2300	2300	2550	2550	2850	2950	3150
Frame width	B1	mm	1500	1500	1750	1750	2000	2000	2300	2400	2600
Total depth approx.	C	mm	1200	1200	1250	1300	1550	1550	1900	1950	2150
Feet depth of press	C1	mm	800	800	860	930	1200	1200	1330	1350	1600
Frame depth	C2	mm	440	440	480	550	700	700	830	850	1000
Bed height above floor	D	mm	900	900	1000	1000	1200	1200	1300	1300	1360
Daylight max.	E	mm	470	500	600	600	750	750	850	850	1050
Width between verticals	G	mm	1000	1000	1200	1200	1300	1300	1500	1500	1500
Weight approx.	kg	2400	2400	4000	4600	8200	10000	17000	20000	32000	38000

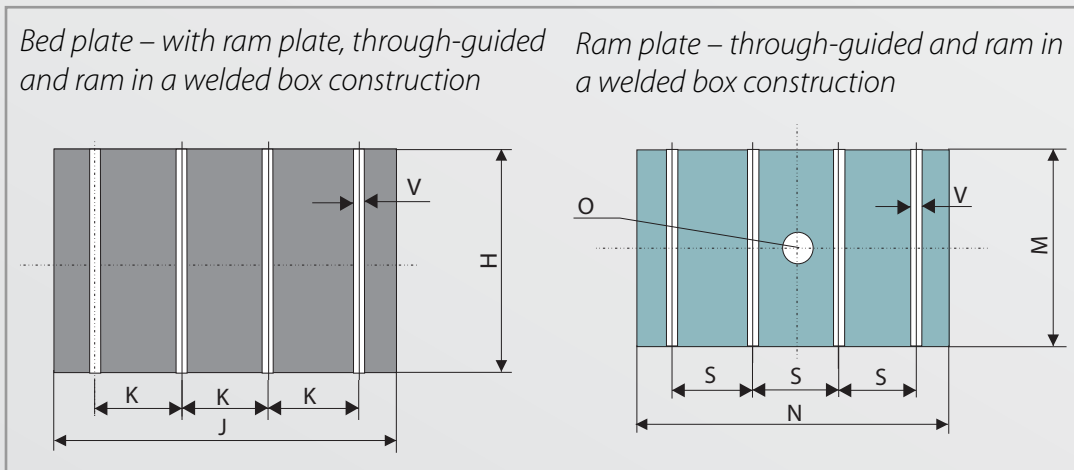
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Bed and ram plates



Bed plate – standard version				LP 25	LP 40	LP 60	LP 100	LP 150	LP 200	LP 300	LP 400	LP 500	LP 600
Bed plate	depth	H	mm	460	460	500	550	700	700	850	870	1020	1020
Bed plate	width	J	mm	600	600	700	700	850	850	1150	1150	1150	1150
T-slots	DIN 650	V	mm	14	14	18	18	22	22	22	22	28	28
T-slots	distance	K	mm	200	200	240	240	340	340	420	420	420	420
T-slots	length	L	mm	200	200	230	230	300	300	400	400	400	400

Ram plate – standard version				LP 25	LP 40	LP 60	LP 100	LP 150	LP 200	LP 300	LP 400	LP 500	LP 600
Ram plate	depth	M	mm	300	300	400	500	600	600	740	740	860	860
Ram plate	width	N	mm	500	500	550	600	700	750	900	970	970	970
Shank screw	H 8	O	Ø mm	32	40	50	50	50	65	65	65	80	80
T-slots	DIN 650	V	mm	14	14	18	18	22	22	22	22	28	28
T-slots	distance	R	mm	200	200	240	240	340	340	420	420	420	420
T-slots	length	S	mm	150	150	155	180	225	250	275	275	275	275

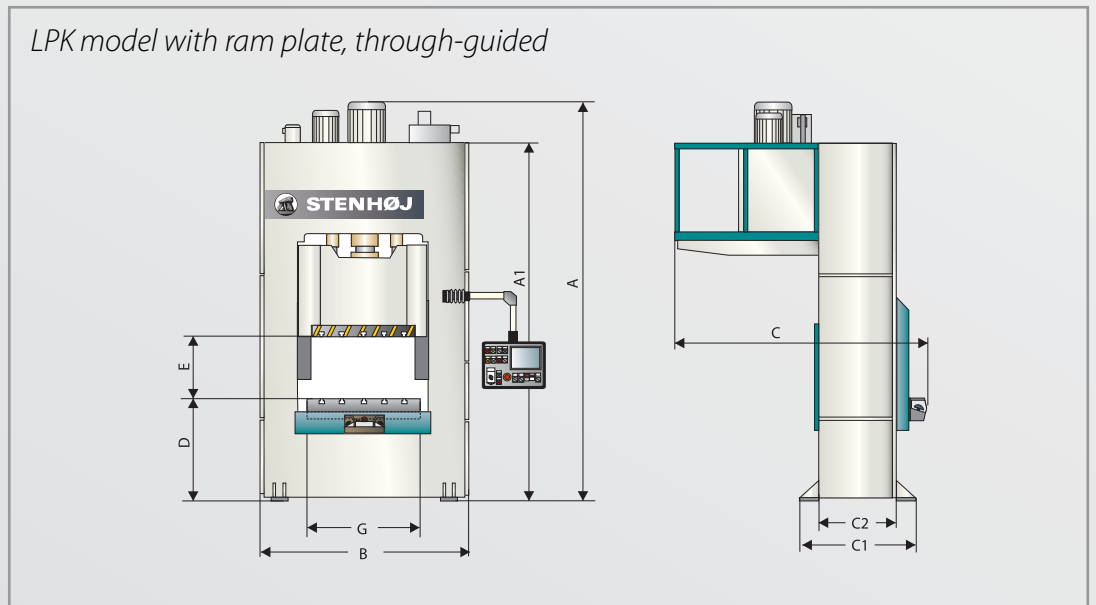


Bed area				LP 25	LP 40	LP 60	LP 100	LP 150	LP 200	LP 300	LP 400	LP 500	LP 600
Bed area	depth	H	mm	460	460	500	570	720	720	850	870	1020	1020
Bed area	with	J	mm	800	800	1000	1000	1100	1100	1300	1300	1300	1300
T-slots	DIN 650	V	mm	14	14	18	18	22	22	22	22	28	28
T-slots	distance	K	mm	200	200	250	250	300	300	350	350	350	350

Ram plate				LP 25	LP 40	LP 60	LP 100	LP 150	LP 200	LP 300	LP 400	LP 500	LP 600
Ram plate	depth	M	mm	360	360	400	450	600	600	700	700	830	830
Ram plate	with	N	mm	800	800	1000	1000	1100	1100	1300	1300	1300	1300
Shank screw	H 8	O	Ø mm	32	40	50	50	50	65	65	65	80	80
T-slots	DIN 650	V	mm	14	14	18	18	22	22	22	22	28	28
T-slots	distance	R	mm	200	200	250	250	300	300	350	350	350	350

Subject to change without notice

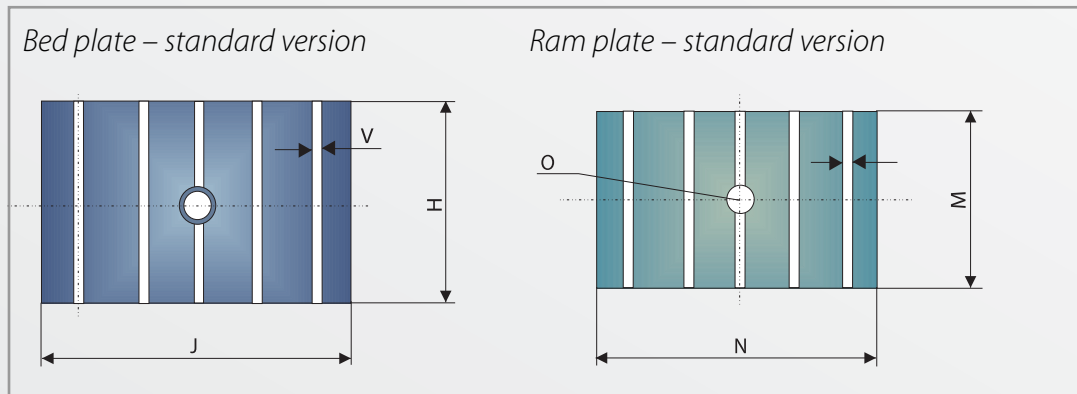
Main dimensions



Production presses - Type LPK with ram plate, through-guided		LPK 100	LPK 150	LPK 200	LPK 300	LPK 400	LPK 500	LPK 600
Press force	kN	1000	1500	2000	3000	4000	5000	6000
Return force	kN	145	190	175	215	225	310	310
Stroke	mm	400	400	400	500	500	600	600
Total height approx.	A mm	4000	4400	4600	5000	5200	5800	6000
Frame height	A1 mm	3500	4200	4200	4600	4600	4900	5200
Total width approx.	B mm	2200	2350	2550	2600	2700	2700	2800
Total depth approx.	C mm	2350	2650	2650	2750	2750	3000	3000
Feet depth of press	C1 mm	1100	1300	1300	1500	1500	1800	1800
Frame depth	C2 mm	700	800	800	900	900	1100	1100
Bed height above floor	D mm	950	1150	1150	1200	1200	1360	1360
Daylight max.	E mm	650	750	750	850	850	1050	1050
Width between verticals	G mm	1120	1320	1320	1420	1420	1420	1420
Weight approx.	kg	10000	14500	17000	23500	27500	38000	43000
Die cushion – model TU3		LPK 100	LPK 150	LPK 200	LPK 300	LPK 400	LPK 500	LPK 600
Die cushion/Ejector		40 ton	60 ton	100 ton	150 ton	200 ton	200 ton	200 ton
Rapid approach speed	mm/s	130	127	103	70	50	50	50
Pressing speed – low press force	mm/s kN	61 86	60 120	50 204	35 294	25 400	25 400	25 400
Pressing speed – high press force	mm/s kN	11 400	12 600	12 1000	8 1500	6 2000	6 2000	6 2000
Return speed – low press force	mm/s kN	113 46	114 64	99 104	70 145	52 196	52 196	52 196
Return speed – high press force	mm/s kN	22 215	22 315	24 509	17 745	12 980	12 980	12 980
Drive power	kW	5,5	7,5	11	11	11	11	11

Subject to change without notice

Bed and ram plates



Bed plate – standard version				LPK 100	LPK 150	LPK 200	LPK 300	LPK 400	LPK 500	LPK 600
Bed plate	depth	H	mm	720	820	820	920	920	1120	1120
Bed plate	width	J	mm	1100	1300	1300	1400	1400	1400	1400
Ram plate	depth	M	mm	720	820	820	920	920	1120	1120
Ram plate	width	N	mm	1100	1300	1300	1400	1400	1400	1400
Shank screw	H 8	O	Ø mm	50	50	65	65	65	80	80
T-slots	DIN 650	V	mm	22	22	22	22	28	28	28

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Production Presses, C-frame

Presses with tradition and a future

Advantages of TE-presses

STENHØJ TE-presses are stable C-frame presses and are excellently suited to continuous operations in everyday production.

The robust welded construction form enables optimal access in the working area.

Using the large selection of available accessories the machine can be adapted to various requirements.

Customised models

Should your application demand alterations to the die installation height, clamping surface, working radius, stroke length, require alternative control options; or call for other special electrical or additional hydraulic equipment, we can offer you an extensive range of special equipment.

Press frames

Low press frame expansion is a basic condition for our TE-model C-frame presses. Therefore we have equipped the press frames with a solid, bend-free

welded steel design. The frame is made in one piece, and being rigid and fracture-free therefore has the required high stability.

Cylinder and guidance

Exact guiding and good seal components are important for press cylinders. For this purpose we use high quality, expertly processed steel tube having a cylinder surface which is either roller polished or honed. The piston rod is ground and hardchrome plated.

The special low wear material of the guide bushing between the piston and the cylinder ensures precise guidance.

This guarantees our presses – together with reliable, low-wear and proven seal elements – a long working life.

Ram specifications (PP)

Depending on the working task requirements our customers may choose between three ram constructions.

TE-presses with standard specifications are equipped with a ram plate having 2 guide columns.

Higher guide accuracy is achieved by equipping the ram plate with 4 guide columns.

For the ultimate stability and most exact guiding for cases involving offcentre loads, there is a ram available in a welded box construction with a 6 flat guide system.

Bed plate and ram plate

The well dimensioned bed plate and the ram plate are equipped with t-slots for clamping the dies. The ram plate is guided by two strong columns and has a shank screw for positioning the die.



Application areas

STENHØJ TE-presses are used for small, medium and large production runs in various fields, such as:

- Deep drawing
- Bending
- Coining
- Stamping
- Assembling

Application industries

- The automobile industry and its suppliers
- Electric and household appliance industries
- Sheet metal and plastic processing industries
- Steel and metal industries
- Stamping contractors and die-making machine factories
- Foundries
- Fitting shops
- Technical colleges and universities, etc.



Production Presses, C-frame

Operational ergonomics

A modern concept and mature design are pre-conditions for optimal ergonomics. Therefore we have placed all the operating controls in visible and accessible positions, so that machine operation is not only simple and safe, but also ergonomic by nature.

Hydraulics – an efficient drive system

The hydraulic power unit, located in the main machine body of the press, is easily accessible and service friendly. The pump system in the standard version is equipped with a 2 stage pump unit. A high pressure pump is used for high press forces. The delivery quantity for fast feed and the low pressure speed is achieved using a low pressure pump having a pressure-dependent switch-off. In this way only a minimal amount of drive power is required at full press force.

With high performance machines, the pump system can be supplied with a variable displacement pump. Pump noise is minimised by mounting the pumps directly in the oil reservoir. The valves are mounted in a compact block form – positioned on the oil reservoir – and are conceived as a safety control fulfilling the current safety regulations.

Electrical control

The control must be user and operator friendly. The relay controls in our TE-presses take this into account. And naturally they comply with the European standard EN 60204 and the most recent accident-prevention regulations according to the European health and safety regulations. According to the safety requirements, the control is fitted with 2 channels for monitoring the operation and stop functions.

The large-dimensioned switching cabinet is mounted on the press side support. Inside are all the electrical control elements installed fully visible and easily accessible.

The different functions of the TE-presses are switched via a panel mounted key switch.

The operation modes are:

- Inching
- 2-hand-operation

As options the operational modes:

- Foot mode** (FB)
Via foot pedal with cable,
- Automatic mode** (AU)
With control link for peripheral units and
- Operation with light guard** (LG)
are available.

Press force regulation

The desired press force can be set finely and infinitely



using the pressure control valve located under the gauge.

The press force is displayed on a glycerine damped gauge which is graduated in tons and kN. The gauge can be disconnected via an isolator valve.

Stroke setting

The graduated scale for the stroke setting – consisting of three cams – is located on the front side of the press. On the middle and right scales upper and lower stop positions can be infinitely set.

The left scale serves to switch from approach speed over to press mode. The setting of the scale lever is carried out using an allen key during the set-up operation.

Programmable control

For customers who need more control, programming and data storage our company offers 2 versions: TP177, and MP277.

The control system which are based on Siemens' PLC equipment and enables the press forces, speeds, and

positions in 1, 2 or 3 axes to be preprogrammed. (Subject to version).

The speeds can be selected either in fixed steps or steplessly – depending upon which hydraulic unit is in use. The MP277 is freely programmable which means that the potential of a modern multi-axes press can be fully exploited.

The control panel with its part and full graphic displays offers comfortable machine monitoring. Softkeys and function keys enable safe and efficient operation.

The functions of the press are continuously displayed as well as operational and error messages. Error messages are given out in text form in the language respectively selected by the operator.

Programming faults are immediately signalled and can be effortlessly corrected.

The extended die cushion functions enable a distance-dependent variable die cushion pressure.

In this way the die cushion function can be optimised. Peripheral equipment, e.g. coil feed, can be exactly controlled using programmable inputs and outputs.



Speeds

(K) 2 x constant pump system		TE 16	TE 25	TE 40	TE 60	TE 100
Rapid approach speed	mm/s	200	195	179	168	94
Pressing speed – low press Force	mm/s	99	95	83	79	46
	kN	35	55	85	140	315
Pressing speed – high press Force	mm/s	24	18	20	19	15
	kN	160	250	400	600	1000
Return speed – low press Force	mm/s	194	187	154	151	91
	kN	18	30	45	75	160
Return speed – high press Force	mm/s	47	36	36	36	30
	kN	81	125	215	315	510
Drive power	kW	4	5,5	7,5	11	15

(V) Variable pump system		TE 60	TE 100	TE 150	TE 200	TE 300
Rapid approach speed	mm/s	0-234	0-145	0-98	0-108	0-88
Pressing speed – low press Force	mm/s	0-110	0-71	0-49	0-55	0-42
	kN	0-135	0-260	0-610	0-676	0-1280
Pressing speed – high press Force	mm/s	110-25	71-22	49-20	55-19	42-18
	kN	135-600	260-1000	610-1500	676-2000	1280-3000
Return speed – low press Force	mm/s	0-210	0-139	0-99	0-112	0-82
	kN	0-70	0-162	0-264	0-338	0-664
Return speed – high press Force	mm/s	210-48	139-44	99-40	112-38	82-35
	kN	70-315	162-510	264-650	338-1000	664-1550
Drive power	kW	15	22	30	37	55

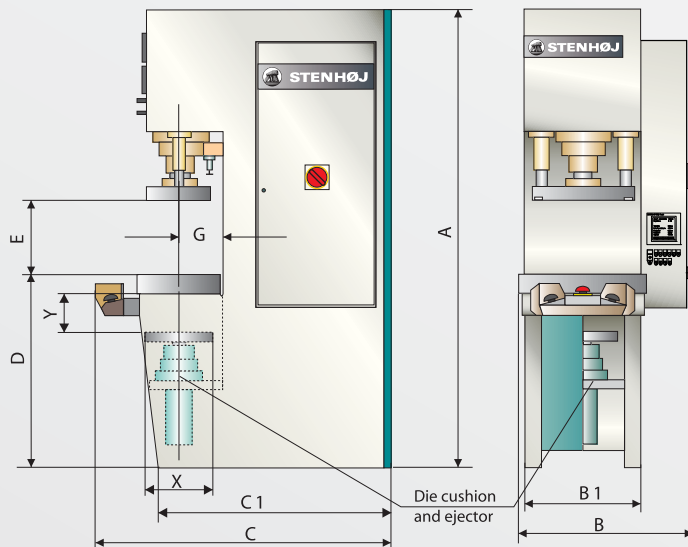
(V-IL) Variable pump system		TE 60	TE 100	TE 150	TE 200	TE 300
Rapid approach speed	mm/s	0-400	0-400	0-350	0-400	0-380
Pressing speed – low press Force	mm/s	0-110	0-71	0-49	0-55	0-42
	kN	0-135	0-260	0-610	0-676	0-1280
Pressing speed – high press Force	mm/s	110-25	71-22	49-20	55-19	42-18
	kN	135-600	260-1000	610-1500	676-2000	1280-3000
Return speed – low press Force	mm/s	0-400	0-370	0-300	0-400	0-380
	kN	0-35	0-55	0-95	0-95	0-138
Return speed – high press Force	mm/s	400-141	370-115	300-125	400-134	380-169
	kN	35-105	55-300	95-235	95-275	138-183
Drive power	kW	15	22	30	37	55

Die cushion – model TU3		TE 16	TE 25	TE 40	TE 60	TE 100	TE 150	TE 200	TE 300
Die cushion/Ejector		16 ton	16 ton	25 ton	40 ton	40 ton	60 ton	100 ton	150 ton
Rapid approach speed	mm/s	200	200	195	130	130	127	103	70
Pressing speed – low press force	mm/s	99	99	95	61	61	60	50	35
	kN	35	35	55	86	86	120	204	294
Pressing speed – high press force	mm/s	24	24	18	11	11	12	12	8
	kN	160	160	250	400	400	600	1000	1500
Return speed – low press force	mm/s	194	194	187	113	113	114	99	70
	kN	18	18	30	46	46	64	104	145
Return speed – high press force	mm/s	47	47	36	22	22	22	24	17
	kN	81	81	125	215	215	315	509	745
Drive power	kW	4	4	5,5	5,5	5,5	7,5	11	11

Subject to change without notice

Main dimensions

TE model standard with 2 or 4 columns



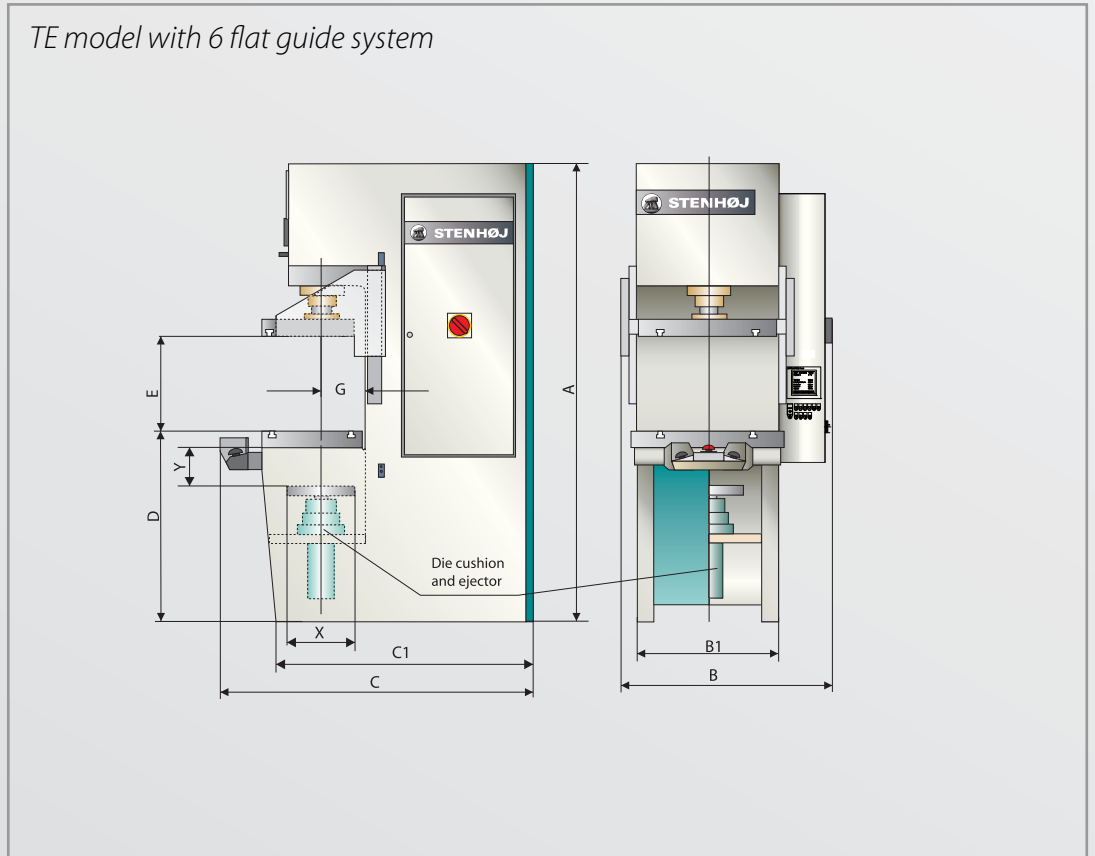
Dimensions – standard version		TE 16	TE 25	TE 40	TE 60	TE 100	TE 150	TE 200	TE 300
Press force	kN	160	250	400	600	1000	1500	2000	3000
Total height approx.	A mm	2550	2550	2550	2950	3000	3400	3450	4000
Total width approx.	B mm	1025	1025	1025	1425	1425	1665	1665	1865
Frame width	B1 mm	600	600	600	700	700	900	900	1100
Total depth approx.	C mm	2000	2000	2000	2300	2400	2750	2750	3110
Frame depth	C1 mm	1750	1750	1750	2020	2130	2490	2490	2860
Bed height above floor	D mm	900	900	900	900	900	1100	1100	1200
Daylight max.	E mm	400	400	400	500	500	500	500	600
Throat depth	G mm	200	200	200	250	300	350	350	400
Stroke	S mm	300	300	300	400	400	400	400	400
Weight approx	kg	2400	2400	2400	3800	5200	8200	9400	14500

Die cushion and ejector Model TU3 – option		TE 16	TE 25	TE 40	TE 60	TE 100	TE 150	TE 200	TE 300
Die cushion force	kN	160	160	250	400	400	600	1000	1500
Ejector force	kN	160	160	250	400	400	600	1000	1500
Die cushion plate WxD	X mm	300	300	300	400	400	500	500	600
Die cushion stroke	Y mm	150	150	170	180	180	200	200	200
Weight of the press approx. incl. die cushion/ejector	kg	2700	2700	2700	4300	6000	9300	11000	16500

Subject to change without notice

Main dimensions

TE model with 6 flat guide system

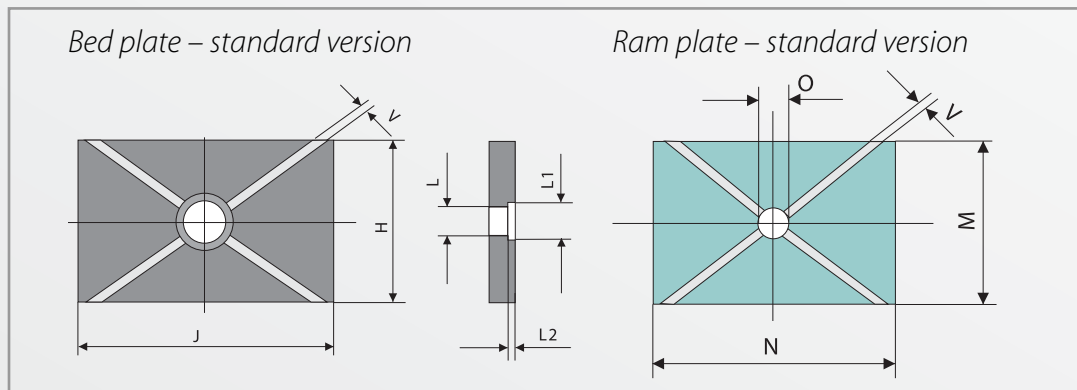


Dimensions – 6 flat guide system			TEK 16	TEK 25	TEK 40	TEK 60	TEK 100	TEK 150	TEK 200	TEK 300
Press force		kN	160	250	400	600	1000	1500	2000	3000
Return force		kN	80	125	215	315	510	650	900	1550
Total height approx.	A	mm	2550	2550	2550	2950	3000	3400	3450	4000
Total width approx.	B	mm	1340	1340	1340	1450	1450	1660	1660	1860
Frame width	B1	mm	600	600	600	700	700	900	900	1100
Total depth approx.	C	mm	2000	2000	2000	2300	2400	2750	2750	3100
Frame depth	C1	mm	1750	1750	1750	2020	2130	2490	2490	2860
Bed height above floor	D	mm	900	900	900	900	900	1100	1100	1200
Daylight max.	E	mm	400	400	400	500	500	500	500	600
Throat depth	G	mm	200	200	200	250	300	350	350	400
Stroke	S	mm	300	300	300	400	400	400	400	400
Weight approx.		kg	2500	2500	2500	3900	5300	8400	9600	15000

Die cushion and ejector Model TU3 – option			TE 16	TE 25	TE 40	TE 60	TE 100	TE 150	TE 200	TE 300
Die cushion force		kN	160	160	250	400	400	600	1000	1500
Ejector force		kN	160	160	250	400	400	600	1000	1500
Die cushion plate WxD	X	mm	300	300	300	400	400	500	500	600
Die cushion stroke	Y	mm	150	150	170	180	180	200	200	200
Weight of the press approx. incl. die cushion/ejector		kg	2800	2800	2800	4400	6100	9500	11200	17000

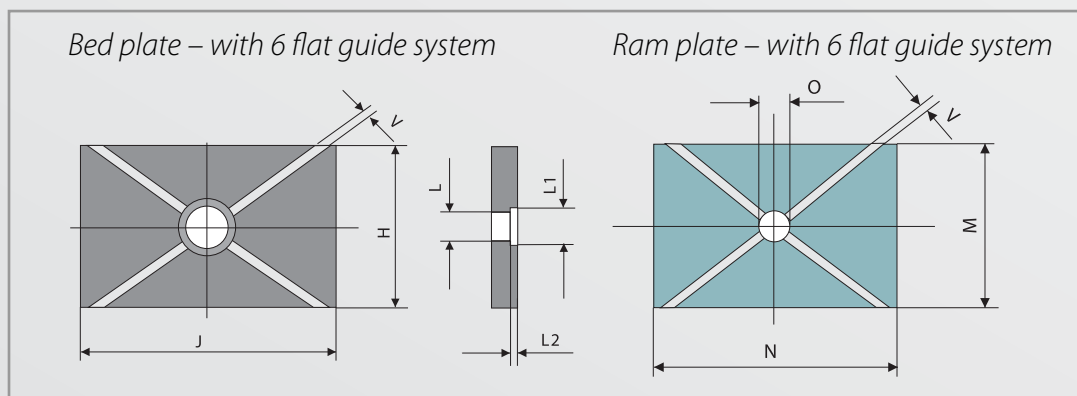
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Bed and ram plates



Bed plate – standard version			TE 16	TE 25	TE 40	TE 60	TE 100	TE 150	TE 200	TE 300
Depth	H	mm	380	380	380	480	580	680	680	780
Width	J	mm	620	620	620	720	720	920	920	1120
Fall through opening H 8	L	Ø mm	100	100	100	100	100	150	150	200
Recess size, bed plate H 8	L1	Ø mm	125	125	125	150	150	200	200	250
Recess depth, bed plate	L2	mm	25	25	25	30	30	40	40	40

Ram plate – standard version			TE 16	TE 25	TE 40	TE 60	TE 100	TE 150	TE 200	TE 300
Depth	M	mm	300	300	300	400	500	600	600	700
Width	N	mm	500	500	500	550	600	730	730	880
Shank screw H 8	O	Ø mm	32	32	40	50	50	50	65	65
T-slots DIN 650	V	mm	14	14	14	18	18	22	22	22



Bed plate – standard version			TE 16	TE 25	TE 40	TE 60	TE 100	TE 150	TE 200	TE 300
Depth	H	mm	380	380	380	480	580	680	680	780
Width	J	mm	620	620	620	720	720	920	920	1120
Fall through opening	L	Ø mm	100	100	100	100	100	150	150	200
Recess size, table plate H 8	L1	Ø mm	125	125	125	150	150	200	200	250
Recess depth, table plate	L2	mm	25	25	25	30	30	40	40	40

Ram plate – standard version			TE 16	TE 25	TE 40	TE 60	TE 100	TE 150	TE 200	TE 300
Depth	M	mm	300	300	300	400	500	600	600	700
Width	N	mm	500	500	500	550	600	730	730	880
Shank screw H 8	O	Ø mm	32	32	40	50	50	50	65	65
T-slots DIN 650	V	mm	14	14	14	18	18	22	22	22

Subject to change without notice

Additional equipment to complete your system

Press force – defined stroke reversal (TV)

Besides the positional ram return mode, a pressure reversal mode – with preadjustable pressing force and dwelling time – is available.

Die cushion (TU3)

The hydraulic die cushion is integrated underneath the bed plate in the press frame.

The functions are preselected via switches.

The required power and desired stroke are infinitely adjustable. The pressure is displayed on a separate gauge and the stroke is adjusted and read on a scale. The hydraulic system works with separate motor and pump unit for operation simultaneously with the ram.

Ejector in the ram (TC)

The hydraulic ejector is a separate element installed on or in the ram, such that press force and stroke are infinitely adjustable. The ejector is also available in a mechanical version.

Light guard (LG)

Using a light guard during insertion work allows operation of the machine without having to activate the normal operating controls. This takes place in a single or double break operation with an additional protection function against unauthorised access.

Integrated rapid approach system (IL)

For applications where high speeds are essential,

TE-presses can be equipped with a special rapid approach system.

This system has a rapid approach cylinder integrated in the main cylinder and so it is possible to achieve a higher speed with the same pump flow.

Impact damping (SH)

This serves to reduce the punch impact and preserve the die. Separate, manually adjustable, damping elements are positioned on the bed plate right next to the die. The damping can be as much as 100% of the nominal press force.

Hydraulic quick die clamping system (VF)

In order to minimise the die changeover times on the press, it is not only most important that the action of installing a new die can take place quickly, but also that this process is comfortable.

When required, the machines can be fitted with a separate hydraulic system for the purpose of quick die clamping. The clamp pressure is then electrically monitored and linked to the machine control system. The clamping system is either provided with 4 clamp cylinders in both the bed plate and ram, or only piped to the bed plate and ram plate using clamps readily available in the market.

Professional clamping equipment enables a high degree of working security and longer die maintenance interval times.



Production Cell



Press with 4-columns guide



Die Cushion



Press with wide day-light



Ejector in ram



2 hand-control and light-guard



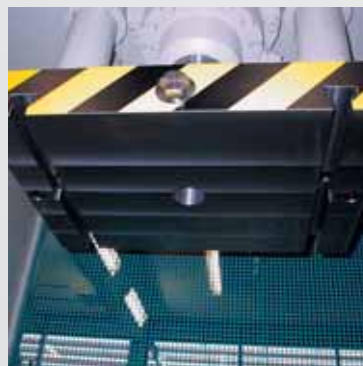
Light guard



Special bed plate with die cushion



Press with flat-guiding!



Ram plate with 2 column guide

Hydraulic Workshop Presses

Since 1932, STENHØJ HYDRAULIK has manufactured hydraulic presses for workshops and industrial production. Since 1960, a substantial percentage of these presses have been delivered to export markets.

Our range of workshop presses has been developed over several years. Thanks to our longstanding experience we have delivered many custom-engineered solutions during the years; the challenge of every single one has been solved with our creative concepts. Our customers acknowledge this, and over the years we have built close relationships with our many customers throughout the world.

This program includes sizes between 25t – 500t and is available in three standard models: Classic, Flexi & LuxPress. We have produced numerous customized

solutions based on the FLEXI model during the years, also based on the unique LuxPress for forces up to 1000t – still with focus on the customer's needs.

The times and also the globalization in general made it necessary to introduce a segmentation to be able to offer a strong product that would be useful to the professional manufacturer. Therefore, we maintain our high quality level. Apart from our standard models we produce an increasing number of semi-standards and customized solutions. For these applications we modify our standard components to fit even the most demanding purposes.

In addition we produce a wide and strong program of tools for these presses.

Our adaptability is our great strength.





Press for hot forming



Cam control – top- and bottom stop



Motor pump unit



1000 t straightening press



Press for small production & tool test



24-7-365 World Wide Service

SERVICE LEVEL – a giant network

We always strive to be the best. To retain this position we have built a unique service and support network. We are represented all over Europe with a strong concentration in Northern Europe.

Our extensive network of dealers with their wide experience of our special products cooperate in representing our local competences and are capable of providing the necessary service support of the products. Our dealers go through an intensive, hands-

on training programme conducted by our own experienced supervisors. In this way we ensure optimum local support for our customers who can obtain round-the-clock support from STENHØJ.

To us a deal is a deal, and therefore we make a virtue of ensuring that our machines work again within 24 hours.

We hope that this presentation has given you an insight into the exciting world that we, at Stenhøj Hydraulik A/S, are engaged in.



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