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PRECISION HAS A NAME:
NOVOPRESS



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LEAD BY INNOVATION

Our name describes the program:

Since decades Novopress is considered to be the forerunner for forward-looking press technology. However, despite all innovation capability: the motivation for our work does not consist in the pioneer spirit of our engineers but in the firm will to recognise in time the challenges of the market and to work out solution possibilities.

With success, as our research teams always manage to convince the industry by always new, application optimised products for the use in the pipe system construction as well as in the electronic industry and the construction industry.

Here, the proximity to our customers in more than 70 countries of the earth represents our uppermost goal. The formula for our thinking and our action is: unconditional customer orientation. Thus, we always orientate our development work at the requirements of our customers, so that they maintain their market position and are even able to extend it.

ALWAYS REMAIN FLEXIBLE

Standstill means a retrograde step. Therefore, we react promptly and flexible if the requirements of our customers change. Whether in form of practice related single products or tailored systems series, we always meet user problems on our way, with the quickest possible, optimal solution.

PRODUCTGROUP

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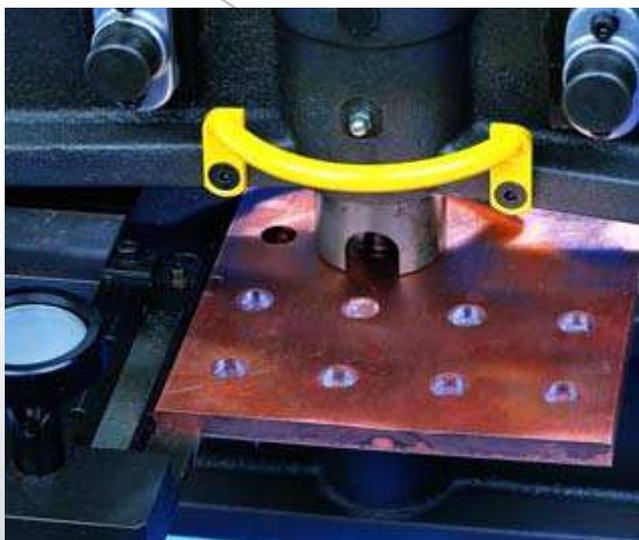
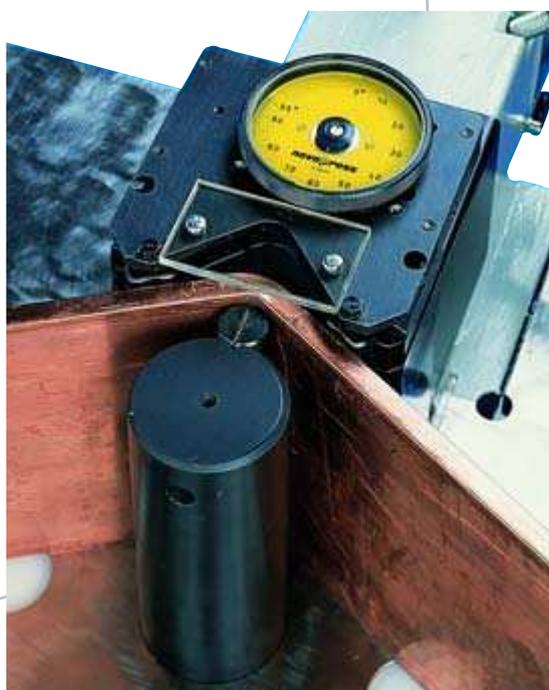
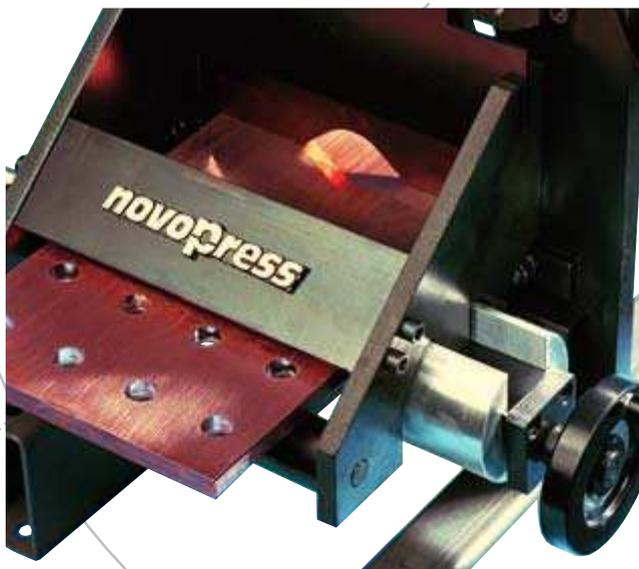
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BUSBAR FABRICATION
SYSTEMS



SLB 125 THREE IN ONE BUS BAR FABRICATING



SLB 125

The unique SLB 125 three-in-one busbar tool guarantees effortless cutting, bending and punching of aluminium and copper busbars. Whether in the work shop or at the construction site - the basic unit transforms into a cutting, bending- or punching machine within seconds. Busbar fabrication from a single mould:

Precise, simple and quick.

Advantages:

- Especially robust and stiff frame.
- Very high quality cutting, bending and punching.
- High operating safety with the built-in safety system.
- Lightning-swift tool changes with a minimum of manipulation.
- The 150 bar low-pressure system ensures a long service life and very fast cycle times.
- Punches copper and aluminium busbars up to 13 mm thick, elongated holes up to 21 x 14 mm and round holes up to 21 mm in diameter.
- Busbars bent accurately up to 120° - very accurate reproducibility of the set angle.

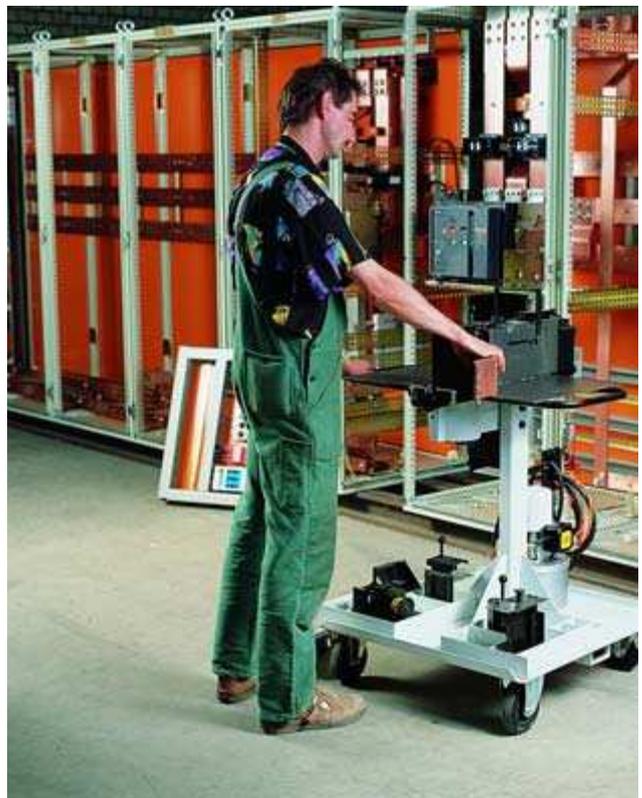
Technical Data:

Depth	677 mm (26,6") without bracket
Width	500 mm (20") without bracket
Height	414 mm (16,3") without bracket
Weight	115 kg (253 lbs) without bracket
Operating Pressure	150 bar (2.200 psi)
Force	180 KN (18 t)
Cutting up to	125 x 13 mm (4 1/2" x 1/2")
Punching	6-21 mm Ø (5/16" - 7/8") elongated up to 21 x 14 mm (7/8" x 9/16")
Bending	max. 125 x 13 mm (120°)

Recommended power packs: HA1 ES, and HA3.

Order Numbers:

- O/N 39659 SLB 125 "Package" incl. accessories and Power Pack HA3.
- O/N 40200 SLB 125 Table top version
- O/N 40070 SLB 125 Roller bracket version
- O/N 31242 Cutting tool for SLB 125
- O/N 31243 Bending tool for SLB 125
- O/N 30980 Punching tool for SLB 125





SLB 125 Accessories

- Cutting tool SLB 125 (O/N 31242)

Cutting of busbars up to 125x13 mm with a max. strength of 250 N/mm². Exact 90° cuts - no chips or burs. Quick and easy mounting of the tool.

- Punching tool SLB 125 (O/N 30980)

Punches bars up to 13 mm thick, elongated holes up to 21x14 mm, round holes up to 21 mm. Accurately reproducible hole patterns can be reproduced with templates.

- Bending tool SLB 125 (O/N 31243)

Busbars bent accurately up to 120° very accurate reproducibility of the set angle. The required angle can be pre-set with a spindle-adjustment. Retention of the set angle even if the cutting tool or punch is used in the meantime.

SLB 125 Accessories

- Step benders (O/N 31425 / 31646)

Small and large type available.

Small step bender for busbars up to 80 x 8 mm

Step = 21 mm, width 18 mm height.

Large step bender for bus bars up to 120 x 10 mm

Step = 37 mm, width 25 mm height.



- Bender for short legs (O/N 31636)

Shortest possible leg 25 mm bends busbars up to 120 x 6 mm, 80 x 8 mm and 60 x 10 mm. Quick and easy handling by mounting the tool on the standard bender. Can be retrofitted to all machines.



HSBL-2 BUS BAR FABRICATING SYSTEM



The perfect bus bar manufacturing

Systematic fabrication of copper bus bars, places very high demands on the precision of tools for punching, bending and cutting. The great flexibility of the HSBL Tool System from Novopress, reliably ensures the easy fabrication of busbars up to 120x10 mm or even up to 160x13 mm (6"x1/2"). With a wide range of cutting and punching tools plus various accessories, the HSBL System is the right choice for start-up and professional users. From a simple and portable basic system, to a high end production line including conveyor work flow, everything is possible. Last but not least there are three choices for bus bar bending, from a portable and very cost efficient bending tool, to the state of the art digital bending bench BGD-3 with unsurpassed precision.

Manage your growth with the flexibility of the Novopress HSBL System.

Advantages of the HSBL-2 System

- Production costs pleasantly low, only one cylinder and hydraulic power pack required for start-up.
- Smooth flow of materials over an integrated conveyor system improves productivity.
- Wide range of punching dies for round, elongated and square shapes.
- Three different hydraulic power packs for easy portability (HA1 ES) to highest output on stationary systems (HA 4) available.
- Bending with unsurpassed precision and quality. Our BGD-4 offers full automatic compensation off material spring back and allows programming off complete bus bar shapes with up to 20 bendings.

HSBL-2 BUS BAR FABRICATING SYSTEM



HSBL-2 Basic Work Cylinder

The work cylinder is the central and essential point of the Novopress HSBL-2 System. Operated with the various hydraulic power packs, it is the key to perfect, simultaneous and efficient busbar fabrication. The HA1 ES power pack offers maximum portability whereas the HA 4 provides unsurpassed production output. Two simple bolts transform the Novopress HSBL-2 System into a universal cutting, punching or bending tool in no time.

*Picture shows HSBL-2 work cylinder including cutting tool 160x13 mm (6" x 1/2")

Technical Data:

Length	615 mm (24 1/4")
Width	140 mm (5 1/2")
Height	340 mm (13 1/4")
Weight	20 kg (44 lbs)
Operating Pressure	150 bar (2.200 psi)
Force	150 KN (15 t)

Recommended power packs: HA1 ES, HA3 and HA4

Order Numbers:

O/N 2420 HSBL-2 work cylinder

HSBL-2 Cutting Tools

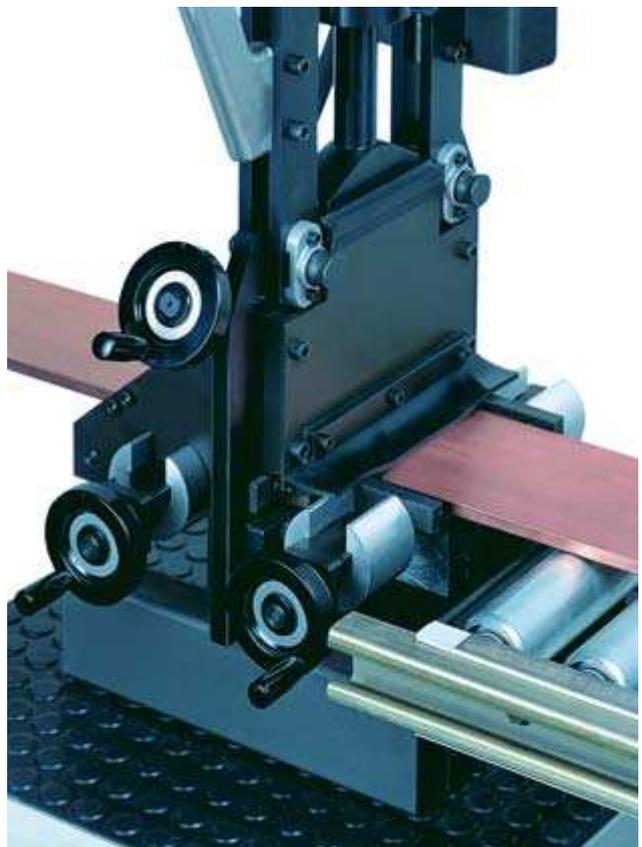
Two different cutting tools are available within the HSBL-2 System. One up to 120x13 mm and as shown on the picture, for 160x13 mm (6" x 1/2") Of course with state of the art operator safety and excellent cutting quality. Additional accessories like fixing vice or conveyor systems are available for professional stationary production. *Picture shows cutting tool 160x13 mm (6"x1/2") including two fixing vices.

Technical data (without accessories)

Width	210 mm (8 1/4")
Height	785 mm (30") including work cylinder
Weight	9,6 kg (21 lbs)
Cutting capacity	160x13 mm (6"x1/2") at 250 Nmm ²

Order Numbers:

O/N 2350 Cutting Tool 120x13 mm (4" x 1/2")
O/N 7020 Cutting Tool 160x13 mm (6" x 1/2")
O/N 7030 Fixing device for 7020
O/N 34245 Cutting Tool 160x13 mm incl. two vices



HSBL-2 DIGIPUNCH 160

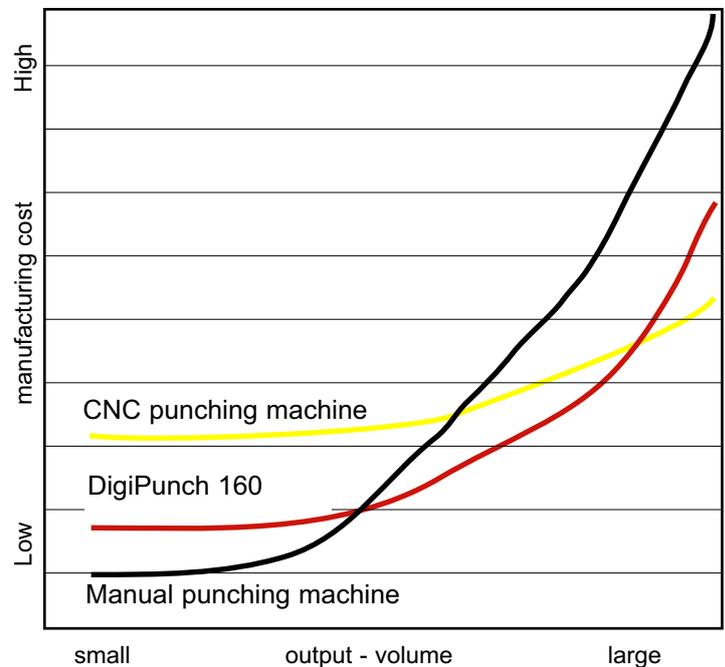


A new class of Performance

With the brand-new "DigiPunch 160", Novopress offers a new class of busbar punching performance for medium-sized enterprises. Wherever ordinary manual punches are insufficient and CNC- controlled machines are too costly, the new "DigiPunch 160" is the ideal mid-size solution. It reduces manufacturing time and cost significantly compared to manual punches at a very modest investment compared to CNC-punches. The very practical configuration with digital metering in X/Y axis and complete conveyors, enables a very efficient and flexible busbar manufacturing.

- Significantly reduced manufacturing cost on medium to medium-large output volume.
- Optimized and speedy work flow through integrated conveyor system and work-bench.
- No programming or preparatory work required, very short set-up times.
- Fast and stepless positioning of busbars in X and Y axis, with 0,5 mm accuracy.
- Switching from absolute- to chain- measurement for fast and easy progressive punching.

Fast - Productive - Competitive



Manage your growth, with the flexibility of the Novopress HSBL - System.



Technical Data:

All necessary components except hydr. power pack and work cylinder are included in delivery. For operation only a regular 110V/60Hz or 220V/50Hz power source is needed. The LCD measuring system works on a permanent battery basis.
Possible hydr. Power Packs: HA1 ES, HA3 and HA4.

Technical Data:

Length	4300 mm
Width	550 mm
Height	1900 mm
Weight	170 kg
Operating pressure	150 bar (2.200 psi)
Force	150 KN

Ref. Numbers:

- Ref. No. 40800 HSBL-2 DigiPunch 160 containing
- Punch with digital measuring system
 - Adjustable work-bench
 - 2 x 2 m conveyor system
 - Supports for conveyors

New progressive punching dies

Also the punching dies are new designed and further reduce manufacturing cost. Punch and die are interchangeable by quick clamp mechanism within 20 sec. The solid toolholder enables progressive punching for oblong and slotted wholes. Switching from absolute to chain-measurement, offers fast progressive punching without extra calculating.

Last but not least we offer a wide range of standard dies for round- oblong- and square punching, especially matched with the needs of the electrical industry.

- Solid toolholder for progressive punching of oblong and slotted wholes.
- Quick clamping offers fast and easy die change within 20 seconds. Set-up times are reduced, no tools necessary.
- Large assortment of standard dies for round- oblong- and square punching.



HSBL-2 BUS BAR FABRICATING SYSTEM



HSBL-2 Punching Tools

Two punching tools up to 120x13 mm and as shown on the picture for 160x13 mm (6" x 1/2") to suit the job. Excellent punching quality with round, elongated and square dies. Additional accessories like guides for precise positioning are available for extensive production requirements.

*Picture shows punching tool 160x13 mm (6"x1/2")

Technical data:

Width	440 mm (17 1/4")
Height	900 mm (35") incl. work cylinder
Weight	28 kg (60 lbs)
Punching capacity	13 mm (1/2") thick at 250 Nmm ²
Round dies	6.6 mm - 21.0 mm (5/16" - 7/8")
Elongated dies	max. 21 mm (7/8")
Square dies	max. 16.5 mm (3/4")

Order Numbers:

- O/N 1118 Punch 120x13 mm (4"x1/2")
- O/N 7050 Punch 160x13 mm (6"x1/2")
- O/N 7190 X-Y positioning guide for 7050
- O/N 34243 Punch 160x13 mm incl. positioning guide

HSBL-2 Basic Bending Tool

The basic bending tool within the HSBL-2 System. Ideal mobility for at site applications up to 120x13 mm (4"x1/2"). Allows exact bending up to 100° with two different radius adaptors, 8 and 16 mm. A simple angle indicator is integrated, hydraulic stop device for repeatable angle setting is available as accessory.

*Picture shows bending tool incl. HAV2 stop device and HSBL-2 work cylinder.

Technical data (without work cylinder)

Width	210 mm (8 1/4")
Length	625 mm (24") including work cylinder
Weight	6 kg (13 lbs)
Bending capacity	120x10 mm (4"x1/2") at 250 Nmm ² 100° radius 8 mm and 16 mm



Order numbers:

- O/N 1179 Bending Tool with angle indicator
- O/N 1627 Hydraulic stop device for angle pre-set.

Electronic Bending Bench BGE

As part of the HSBL-2 System, the electronic bending bench BGE, set's the start into professional stationary bus bar bending. Copper and aluminium busbars up to 160x13 mm (6"x1/2") will be bent with precise angle preselection and easy compensation of material spring back. Three different bending radius with 7,5, 10, and 15 mm diameter are standard supply, thus different material thickness is no problem. Optional special accessories like, step benders, edge benders and short leg bender, cover almost every task for bus bar bending in the switchgear industry.

*Picture shows complete bending bench BGE incl. HSBL-2 work cylinder and power pack HA1 ES.

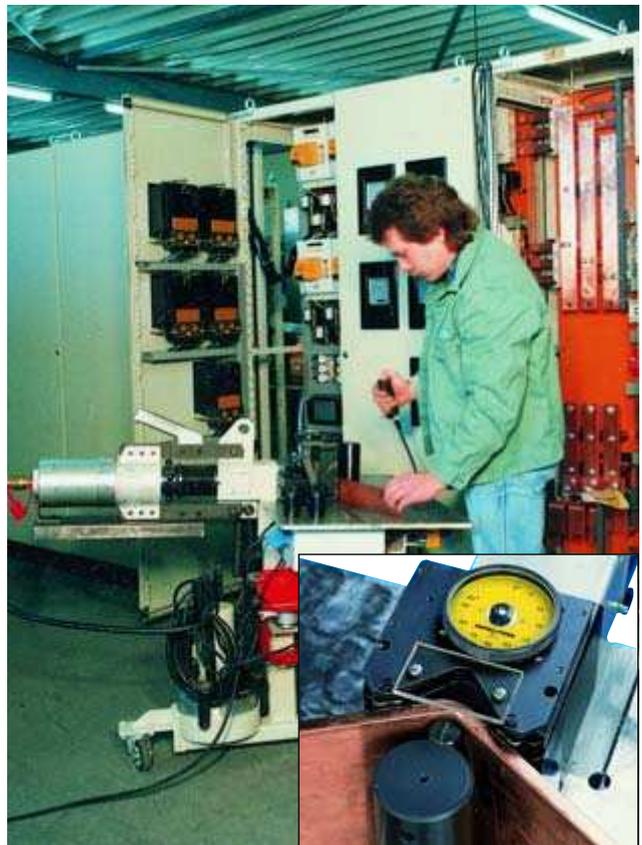


Technical Data:

Length	incl. cylinder 1320 mm (52")
Width	800 mm (32")
Height	incl. cylinder 1105 mm (43")
Weight	excl. cylinder 190 kg (419 lbs)
Bench height	760 mm (30")
Bending capacity	160x13 mm (6"x1/2") at 250Nmm ²
Shortest U-bend at 90°	70 mm (2" 3/4")
Shortest Z-bend at 90°	65 mm (2" 1/2")
Operating Pressure	150 bar (2.200 psi)
Force	150 KN (15 t)

Order Numbers:

- O/N 30290 Complete bending bench , incl. work cylinder HSBL-2 and hydraulic power pack HA1 ES.
- O/N 4940 Bending bench only, requires HSBL-2 work cylinder (ref. 2420) and hydr. power pack HA1 ES (ref. 31070)



DIGITAL BENDING BENCH BGD-4



The digital bending bench BGD-4

The 'thinking' bending bench, bends the required angle with unsurpassed precision, by automatically compensating for any spring-back on the material. Desired bending angle as well as the leg length are fully program-mable for up to 200 different bus bars. Designed for bus bars up to 160 x 13 mm (6" x 1/2") and for all special applications like edge bending, step bending and very short leg length.

Advantages:

- No test - bends.
- Fully programmable for up to 200 different bus bars and 20 bendings each.
- Precision of 0,2° on all bus bar dimensions allows full pre-fabrication of bus bar parts.
- Automatic repeat function boosts productivity.
- Robust roller bracket allows mobility within the workshop.

Technical Data:

Depth	720 mm (33")
Width	1150 mm (39")
Height	1.350 mm (54")
Weight	240 kg (512 lbs.)
Operating Pressure	190 bar (2.800 psi)
Force	180 KN (18 t)
Bending up to max.	160x13 mm (6" x 1/2")
Bending radius adaptors	7.5, 10, 15, 30 mm
Length stop range max.	400 mm (15")
Voltage	220-240V 50Hz. or 110-120V 60Hz.
Power rating	1,5 KW

Integrated Power Pack

Order Numbers:

O/N 40000	BGD-4 digital bending bench including autom. length stop 400 mm.
O/N 40090	BGD-4 without autom. length stop
O/N 31188	Step bender
O/N 31221	Edge bending tool
O/N 31850	Supplementary bender for short legs.



BENDING BENCH ACCESSORIES



BGE / BGD-4 Accessories

- Large step bender (O/N no. 31188)

For copper and aluminium bars up to 120 x 10 mm (4" x 3/8"). Highest step, 26 mm at a width of 37 mm. Ideal for fast and exactly parallel step bends with only one bending operation.

- Small step bender (O/N no. 31671)

Similar to the large step bender, but for even sharper steps on bus bars up to 80 x 8 mm (3" x 1/4). Step height 18 mm at only 21 mm width.

BGE / BGD-4 Accessories

- Edge bender (O/N no. 31221)

For edge-wise bending, which saves 45° or 90° joints by nuts and bolts. For busbar dimensions - 40 x 10 mm (1 1/2" x 3/8) up to 90°
50 x 10 mm (2" x 3/8) up to 45°

- Supplementary bender (O/N no. 31850)

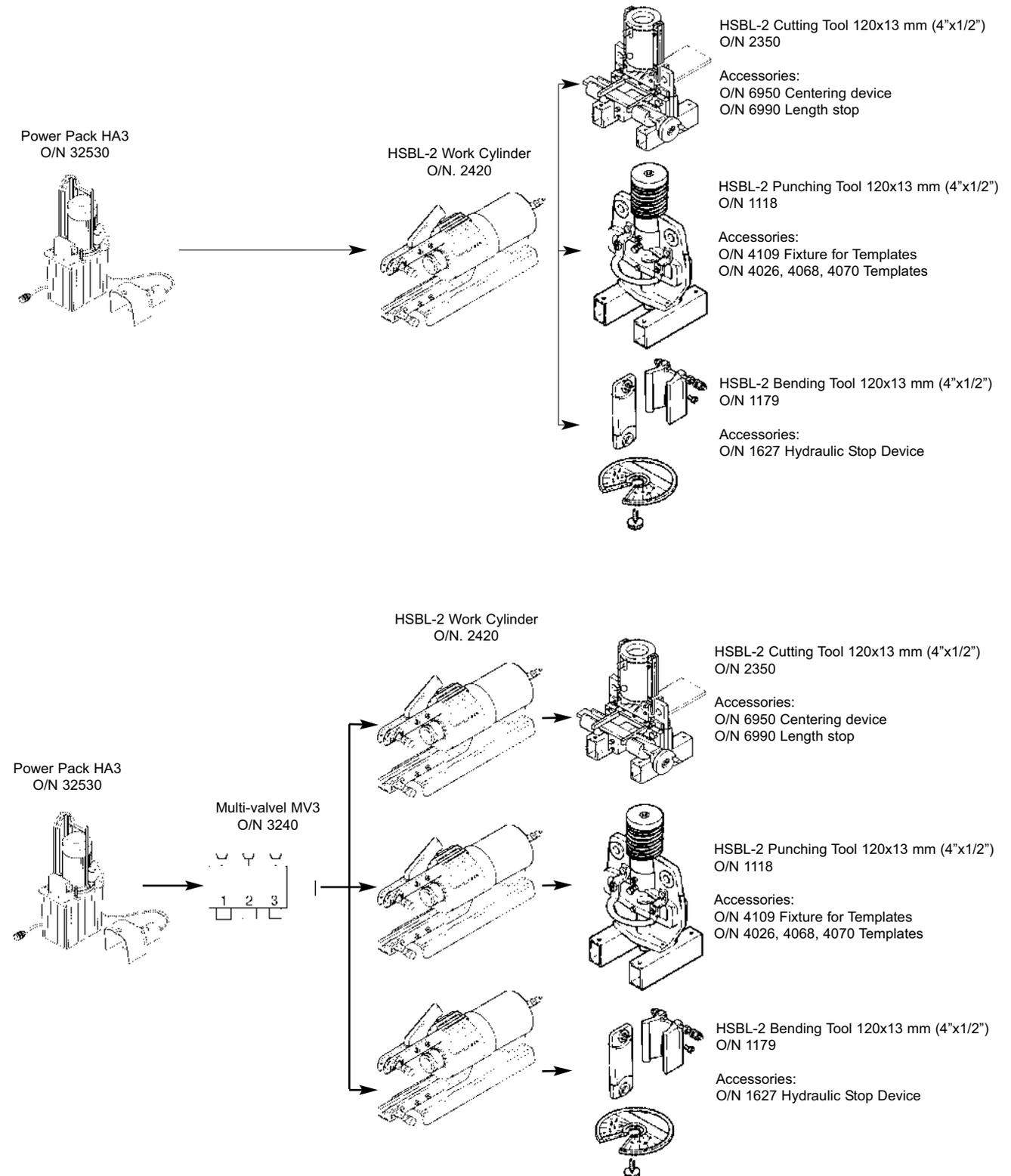
To bend very short leg length, as requested by today's modern circuit breakers etc. Minimum leg length of only 25 mm (1") possible.



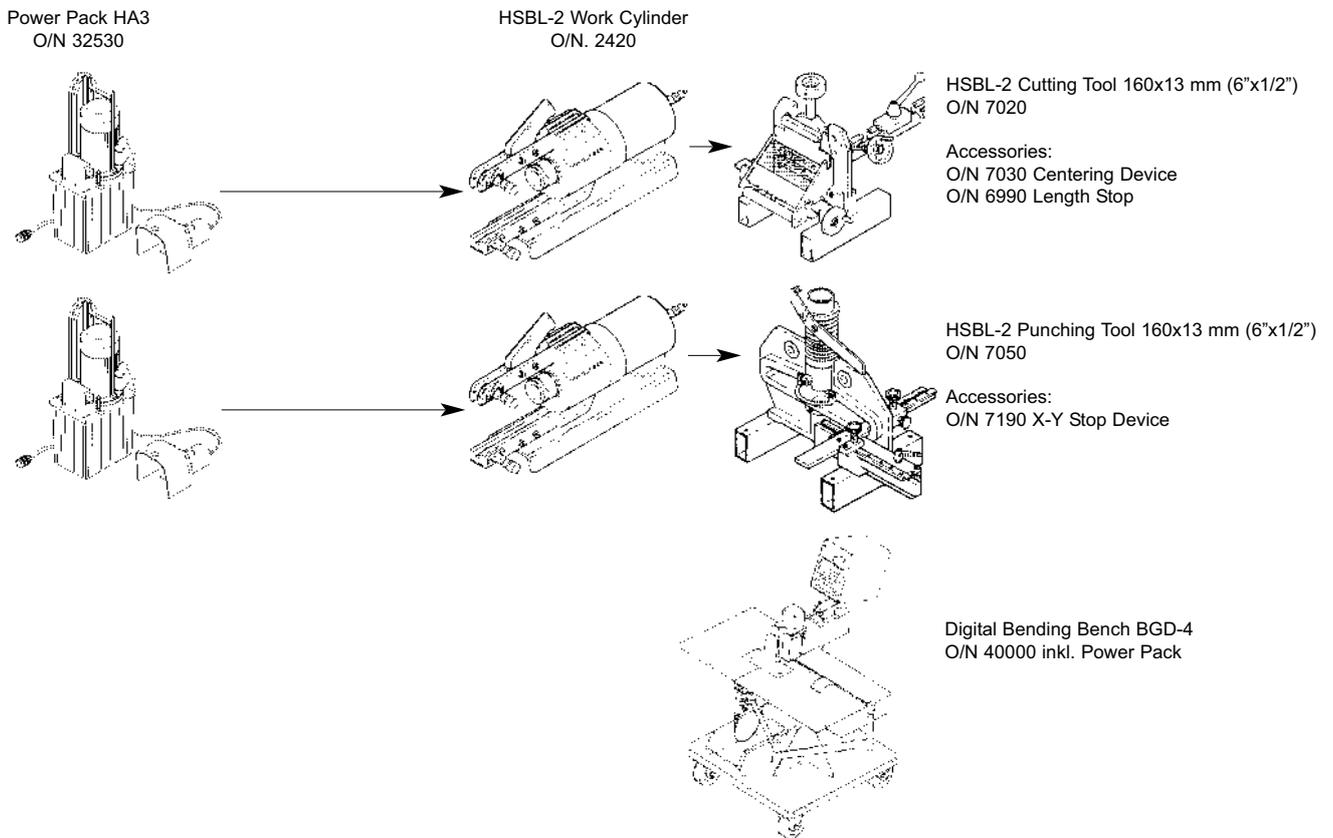
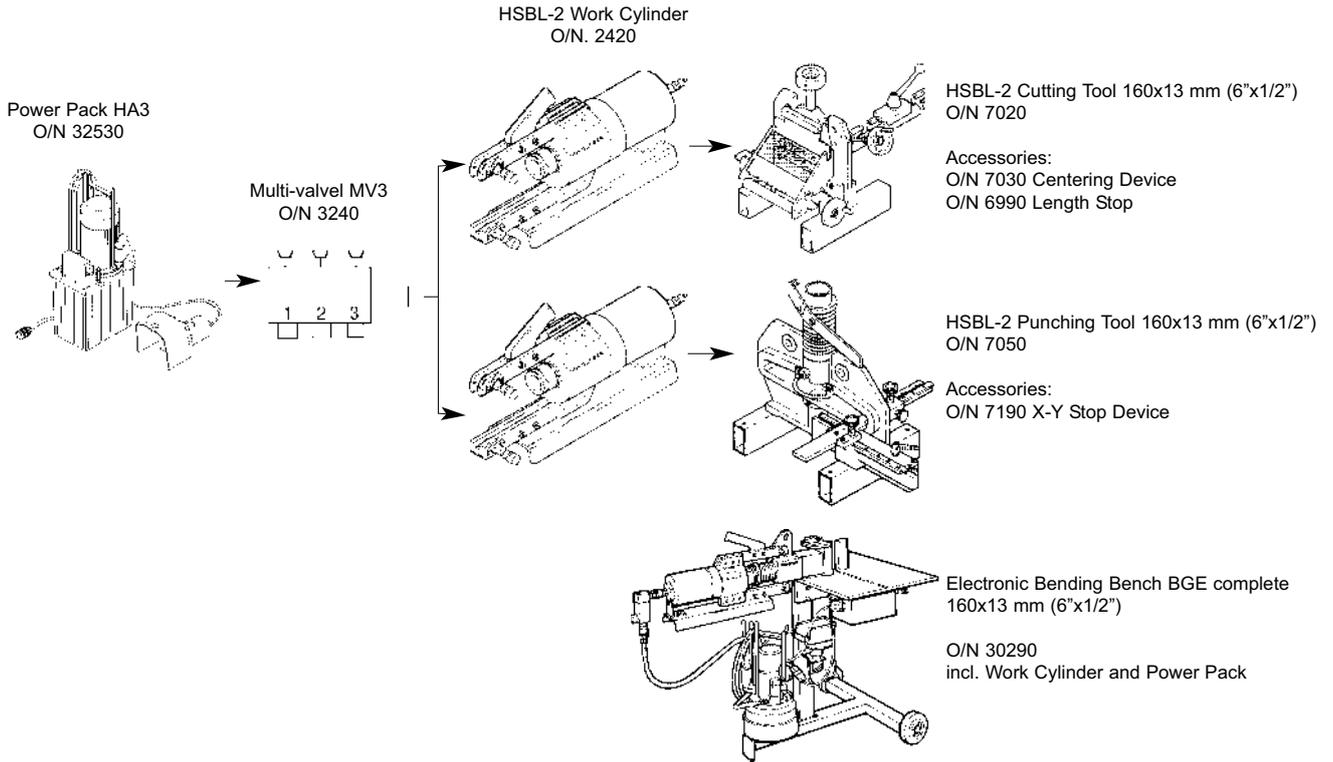
CONFIGURATIONS HSBL-2 SYSTEM

The HSBL-2 System offers a wide range of possible configurations, depending on technical requirements and the volume of output. Individual scalability of the system allows the permanent adaptation to increasing demands in industrial production. The here shown configurations are some samples of the high flexibility and mobility of the

system. Further accessories like e.g. conveyors with measuring fixture or the high performing power pack HA4, are expanding the possibilities of boosting productivity in larger production facilities. Manage your growth with the flexibility of the Novopress HSBL-2 System.



CONFIGURATIONS HSBL-2 SYSTEM



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DIELESS CRIMPING TOOLS



DIELESS CRIMPING TOOLS



HPA 400 Battery Crimping Tool

The HPA 400 offers the well established advantages of the dieless Novopress indent crimp in combination with a state of the art electro-hydraulic battery drive. With only 7.5 kg and exemplary ergonomics, our HPA 400 sets new standards in terms of operator convenience and safety in its class. Without any die change you crimp in only 9 sec. and up to 120 times per charge, various make of lugs or sleeves in CU and AL quality from 16 to 400 mm². The 90° rotatable crimping head allows convenient crimping even in restricted working space. Delivered including box, charger and spare battery.

Technical Data:

Length	470 mm (18 1/2")
Weight	7.5 kg (16 lbs)
Cross section CU	16-400 mm ² (6 AWG - 750MCM)
Cross section AL	50-400 mm ² (2 AWG - 750MCM)
Battery	14,4V 2,4Ah
Charger	220V / 50cycl. and 110V / 60cycl.
Force	120 KN (12 t)

Order number:

O/N 38500 Complete set, incl. box, charger and spare battery

HPM 400 Dieless, self-contained

The HPM 400 is the ideal crimping tool for cable lugs, jointing sleeves, rigid and flexible conductors. The cross section ranges are suitable for copper from 16 - 400 mm² and for aluminium from 50 to 400 mm² without changing any dies. Used by many Utilities around the world, the HPM 400 is a robust and most universal crimping tool approved to many Standards including VDE, CSA, UL etc.

Technical Data:

Length	550 mm (21 1/2")
Weight	5,9 kg (13 lbs)
Cross section CU	16-400 mm ² (6 AWG - 750MCM)
Cross section AL	50-400 mm ² (2 AWG - 750MCM)
Force	120 KN (12 t)

Order number:

O/N 5200 Complete set, incl. box and test bar.



HP 95 Dieless remote head

For copper cable lugs and jointing sleeves, rigid and flexible conductors in the cross-section range from 10-95 mm² (AWG 8 - 4/0) without changing dies. Ideal for switchgear manufacturing and other applications, where fast and easy crimping of various wire sizes is required.

Recommended Power Packs: HA1 ES or HA3

Technical Data:

Length	350 mm (14")
Diameter	65 mm (2 1/2")
Weight	3,0 kg (7 lbs)
Cross section	10-95 mm ² (8 AWG - 4/0 AWG)
Operating pressure	150 bar (2.200 psi)
Force	60 KN (6 t)

Order number:

O/N 3000 HP 95 Remote head, incl. test bar.



HP 300 Dieless remote head

For copper cable lugs and jointing sleeves, rigid and flexible conductors in the cross-section range from 50 to 300 mm² (AWG 2 - 600 MCM) without changing dies. The HP 300 is also admirably suitable for aluminium conductors, for which there are two special bottom dies and various pre-forming dies available.

Recommended Power Packs: HA1 ES or HA3

Technical Data:

Length	430 mm (17")
Diameter	80 mm (3")
Weight	4,5 kg (11 lbs)
Cross section	50-300 mm ² (2 AWG - 600 MCM)
Operating pressure	150 bar (2.200 psi)
Force	100 KN (10 t)

Order number:

O/N 1000 HP 300 Remote head, incl. test bar.



DIELESS CRIMPING TOOLS

HPH 400 Dieless remote head

The HPH 400 is the ideal crimping tool for cable lugs, jointing sleeves, rigid and flexible conductors. The cross section ranges are suitable for copper from 16 - 400 mm² and for aluminium from 50 to 400 mm² without changing any dies. Technical features are similar to the HPM 400, but with much faster crimping action depending on the connected power pack.

Recommended Power Packs: HA11

Technical Data:

Length	380 mm (18")
Weight	3,7 kg (8 lbs)
Cross section CU	16-400 mm ² (6 AWG - 750MCM)
Cross section AL	50-400 mm ² (2 AWG - 750MCM)
Force	120 KN (12 t)

Order number:

O/N 5000 Remote Crimping Head incl. test bar.



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HYDRAULIC
POWER PACKS



HYDRAULIC POWER PACKS

Hydraulic Power Pack HA1 ES



For all applications on site and regular workload in fabricating the HA 1-ES is our standard power pack. Through a combined safety and return valve, an overload of either the power pack or the connected tool is prevented. Userfriendly operation by foot-switch with integrated emergency button and integrated 24 V controls for hand-operated tools meets the latest safety regulation VVA/UVB.

Technical Data:

Length	270 mm (10 1/2")
Width	270 mm (10 1/2")
Height	470 mm (18 1/2")
Weight incl. Oil	18 kg (40 lbs)
Max. pressure	150 bar (2.200 psi)
Flow rate (l/min.)	4,5l
Oil volume	3,5l
Voltage	110V / 60Hz. or 240V / 50Hz.
Power	800 W
Protection class	IP44

Order number:

O/N 31070 HA1 ES Power Pack.

Hydraulic Power Pack HA3

For heavy duty applications and continuous production, with a high performance drive and extended oil volume. Available with or without 24V controls for hand operated crimping tools or cable shears.

Technical Data:

Length	260 mm (10 1/2")
Width	270 mm (10 1/2")
Height	550 mm (21 1/2")
Weight incl. Oil	26 kg (57 lbs)
Max. pressure	150 bar (2.200 psi)
Flow rate (l/min.)	4,0l
Oil volume	5,5l
Voltage	110V / 60Hz. or 240V / 50Hz.
Power	750 W
Protection class	IP54

Order Numbers:

O/N 32530 HA3 Power Pack

O/N 33340 HA3 Power Pack incl. 24V controls



Hydraulic Power Pack HA4

With a flow rate of 10,5 l/min. at 150 bar (2.200 psi) the HA 4 offers outstanding performance for almost unlimited production speed. Cycle times for cutting, punching or bending of large bus bars will be reduced more than 50%, by using the HA 4 power house. (Not suitable for hand-operated tools.)



Technical Data:

Length	420 mm (17")
Width	470 mm (18 1/2")
Height	560 mm (22")
Weight incl. Oil	45 kg (96 lbs)
Max. pressure	150 bar (2.200 psi)
Flow rate (l/min.)	10,5 l
Oil volume	12 l
Voltage	240V / 50Hz.
Power	1500 W
Protection class	IP54

Order Number:

O/N 34280 HA4 Power Pack.

HA11

The power pack HA11 was especially designed for the needs of our dieless crimping tool HEX 300-10, in mobile and stationary applications. The controls are perfectly adapted to the HEX 300-10, thus you can expect a full automatic compression incl. return stroke, controlled at the crimping head. At a weight of 18 Kg only, the HA11 offers outstanding power reserves for the use in manufacturing and service.

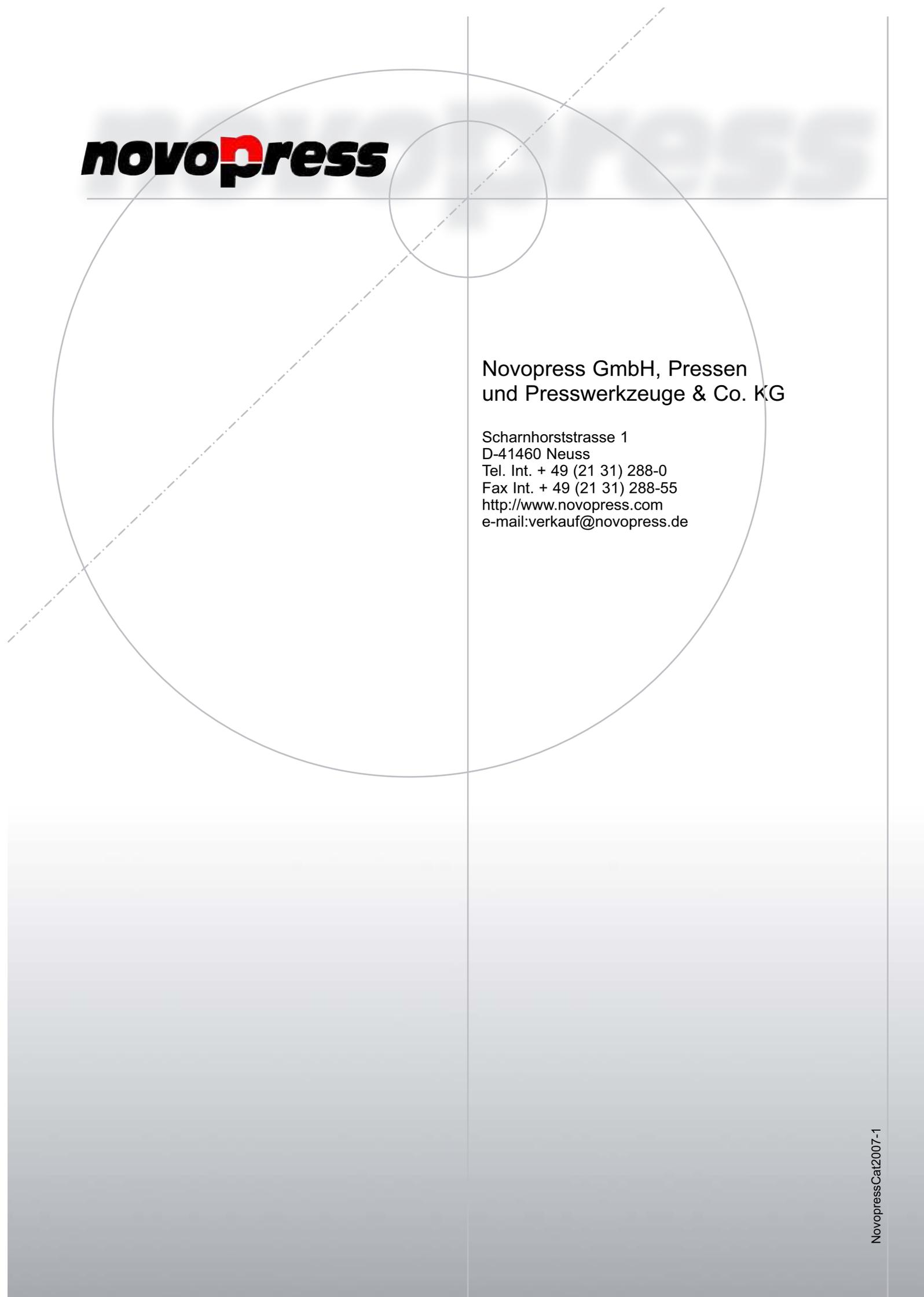
Technical Data:

Length	400 mm
Width	160 mm
Height	440 mm
Weight incl. Oil	18 kg
Operating pressure	700 bar (10.000 psi)
Flow rate	max. 4 l
Oil capacity	2,0 l
Voltage	240 V/50 Hz
Power	370 W
Protection class	IP54

Order Numbers:

O/N 40123 HA11 Power Pack





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