

Pressure generators



Pressure generator

To use your „tool“ Bolt tensioning device or Hydraulic torque wrench and your „machine element“ Hydraulic nut optimally, we configure for you the following pressure generators in the pressure areas 1,000 bar, 1,600 bar and 2,500 bar.

The product line is subdivided into the field

- Manuel, grease
- Manuel, oil
- Air driven
- Electrical driven

So that you can select the most economical solution for you

These demonstrated performance are the mostly used application. If another equipment option should be required, we are gladly ready to develop the solution suitable for you. Also see equipment variations as well as accessories



Hand lever pump



Air-hydraulic pump



Electrohydraulic pump



Pressure intensifier



Grease gun

Pressure generator

Hand-Lever-Pump 1,000 bar

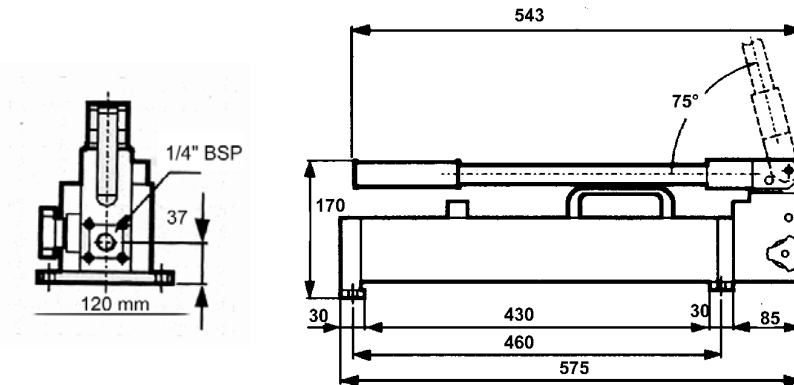


Fig. HDP10001000

HDP10...

Specification:

- ⇒ Pressure up to a maximum of **1,000 bar**
- ⇒ Designed according to **CE** and **ISO 9001**
- ⇒ Two-staged (automatic reversible)
- ⇒ Adjustable pressure relief valve
- ⇒ Carrying handle
- ⇒ Robust performance
- ⇒ Small weight

Article-No.	Pressure gauge-terminal block	Pressure gauge Ø 100, 0-1,000 bar, Cat. 1.0, glycerinfilled, dial graduation 20 bar	Connecting		High-pressure fast-lock coupling (Female)
			Inside	Outside	
HDP10001000	no	no *	1/4 BSP	-	no
HDP10002000	no	no *	-	G 1/4", 60° DK	no
HDP10003000	no	no *	-	G 1/4"	yes
HDP10004000	yes	yes	1/4 BSP	-	no
HDP10005000	yes	yes	-	G 1/4", 60° DK	no
HDP10006000	yes	yes	-	G 1/4"	yes

This demonstrated performance is the mostly used application. If another equipment option should be required, we are gladly ready to develop the solution suitable for you.

Standard

- 1. Stage up to 30 bar
Oil output volume 32 cm³/stroke
- 2. Stage up to 1,000 bar
Oil output volume 1,6 cm³/Hub
- Tank contents 1,9 l
- Usable contents 1,5 l
- Weight ca. 6,8 kg
- Lever effort 370 N
according to DIN 360 N
- Oilfilled, tested and vented
- One Connector

Options

- Other connecting threads
see catalogue-sheet
- Other manometer
see catalogue sheet
- Manifold blocks
see catalogue sheet
- High pressure hoses
see catalogue
- Tank capacity 4 l and/or 8 l
- Carrying case
- Distributing valve as mounting valve

* Remark:

If you use a suitable pressure gauge in your equipment, choose a performance from HDP10001000 up to HDP10003000 (without pressure gauge).

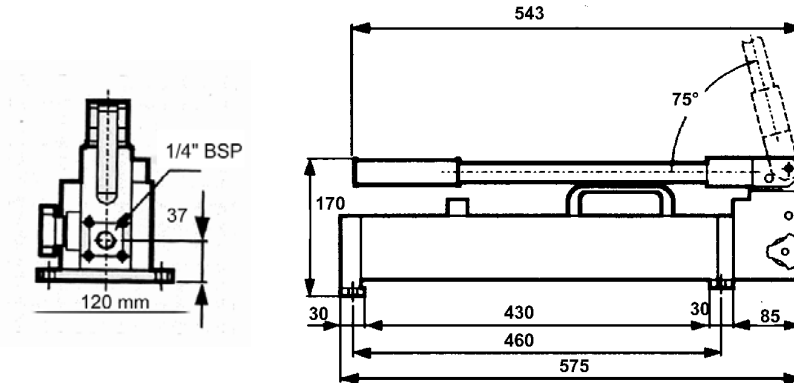
If no pressure gauge is available, please choose a performance from HDP10004000 up to HDP10006000 (with pressure gauge)

Never use your hydraulic system **without** a pressure gauge.

Error, technical modification and omission excepted. Copyright DIN 34

Pressure generator

Hand-Lever-Pump 1,600 bar



HDP16...

Specification:

- ⇒ Pressure up to a maximum of **1,600** bar
- ⇒ Designed according to **CE** and **ISO 9001**
- ⇒ Two-staged (automatic reversible)
- ⇒ Adjustable pressure relief valve
- ⇒ Carrying handle
- ⇒ Robust performance
- ⇒ Small weight

Picture HDP16001000

Article-No.	Pressure gauge-terminal block	Pressure gauge Ø 100, 0-1,600 bar, Cat. 1.0, glycerinfilled, dial graduation 20 bar	Connecting		High-pressure fast-lock coupling (Female)
			Inside	Outside	
HDP16001000	no	no *	1/4 BSP	-	no
HDP16002000	no	no *	-	G 1/4", 60° DK	no
HDP16003000	no	no *	-	G 1/4"	yes
HDP16004000	yes	yes	1/4 BSP	-	no
HDP16005000	yes	yes	-	G 1/4", 60° DK	no
HDP16006000	yes	yes	-	G 1/4"	yes

This demonstrated performance is the mostly used application. If another equipment option should be required, we are gladly ready to develop the solution suitable for you.

Standard

- 1. Stage up to 20 bar
Oil output volume 32 cm³/stroke
- 2. Stage up to 1,600 bar
Oil output volume 1,6 cm³/Hub
- Tank contents 1,9 l
- Usable contents 1,5 l
- Weight ca. 6,8 kg
- Lever effort 460 N according to DIN 360 N
- Oilfilled, tested and vented
- One Connector

Options

- Other connecting threads
see catalogue-sheet
- Other manometer
see catalogue sheet
- Manifold blocksail
see catalogue sheet
- High-pressure hoses
see catalogue
- Tank capacity 4 l and/or 8 l
- Carrying case

* Remark:

If you use a suitable pressure gauge in your equipment, choose a performance from HDP16001000 up to HDP16003000 (without pressure gauge).

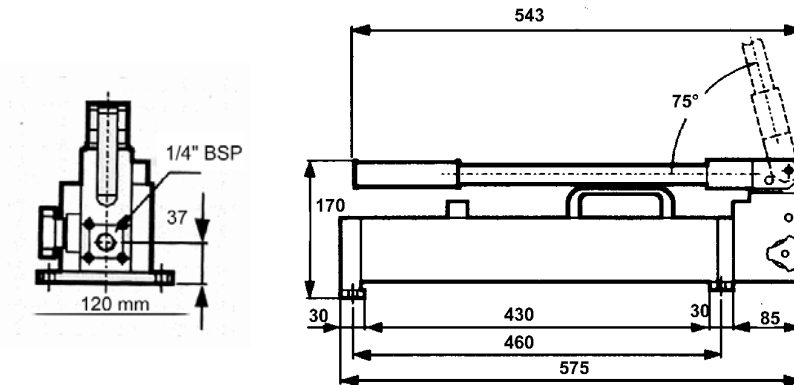
If no pressure gauge is available, please choose a performance from HDP16004000 up to HDP16006000 (with pressure gauge)

Never use your hydraulic system **without** a pressure gauge.

Error, technical modification and omission excepted. Copyright DIN 34

Pressure generator

Hand-Lever-Pump 2,500 bar



Picture HDP25001000

HDP25...

Specification:

- ⇒ Pressure up to a maximum of **2,500 bar**
- ⇒ Designed according to **CE** and **ISO 9001**
- ⇒ Two-staged (automatic reversible)
- ⇒ Adjustable pressure relief valve
- ⇒ Carrying handle
- ⇒ Robust performance
- ⇒ Small weight

Article-No.	Pressure gauge-terminal block	Pressure gauge Ø 100, 0-2,500 bar, Cat. 1.0, glycerinfilled, dial graduation 20 bar	Connecting		High-pressure fast-lock coupling (Female)
			Inside	Outside	
HDP25001000	no	no *	3/4"-16UNF	-	no
HDP25002000	no	no *	-	9/16"UNF 60° DK	no
HDP25003000	no	no *	-	1/4 BSP	yes
HDP25004000	yes	yes	3/4"-16UNF	-	no
HDP25005000	yes	yes	-	9/16"UNF 60° DK	no
HDP25006000	yes	yes	-	1/4 BSP	yes

This demonstrated performance is the mostly used application. If another equipment option should be required, we are gladly ready to develop the solution suitable for you.

Standard

- 1. Stage up to 20 bar
Oil output volume 32 cm³/stroke
- 2. Stage up to 2,500 bar
Oil output volume 0,9 cm³/Hub
- Tank contents 1,9 l
- Usable contents 1,5 l
- Weight ca. 6,8 kg
- Lever effort 450 N according to DIN 360 N
- Oilfilled, tested and vented
- One Connector

Options

- Other connecting threads
see catalogue-sheet
- Other manometer
see catalogue sheet
- Manifold blocks
see catalogue sheet
- High pressure hoses
see catalogue
- Tank capacity 4 l and/or 8 l
- Carrying case
- Distributing valve as mounting valve

* Remark:

If you use a suitable pressure gauge in your equipment, choose a performance from HDP25001000 up to HDP25003000 (without pressure gauge).

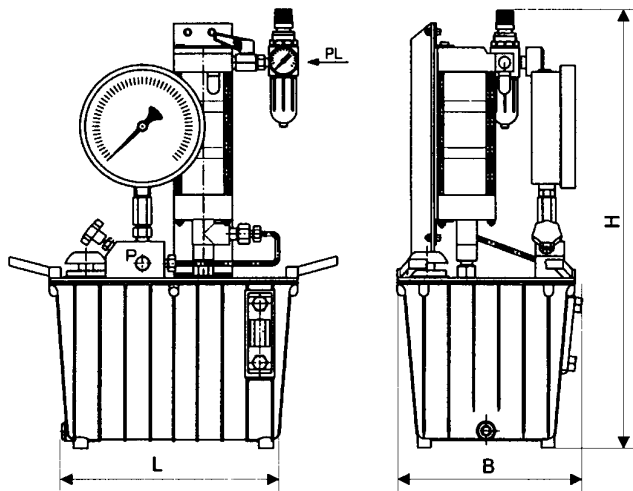
If no pressure gauge is available, please choose a performance from HDP25004000 up to HDP25006000 (with pressure gauge)

Never use your hydraulic system **without** a pressure gauge.

Error, technical modification and omission excepted. Copyright DIN 34

Pressure generator

Air-Hydraulic-Pump 1,000 bar



LDP10001

Specification:

- ⇒ Pressure up to a maximum of **1,000** bar
- ⇒ 6,5 l tank capacity
- ⇒ transportable
- ⇒ Pressure exit ¼ BSP
- ⇒ Manometer 0-1,000 bar, Ø 100, Category 1.0, glycerinfilled, dial graduation 20 bar
- ⇒ Compression-air condition consisting of:
 - filter, water separator, pressure regulator, air pressure manometer
- ⇒ air pressure shutoff valve
- ⇒ safety valve air sided
- ⇒ pressure medium oil

Article-Number	Max. hydraulic-pressure in bar	Safety valve air sided	Gear ratio	Stroke volume (rated) in cm ³	Flow rate l/min	L x B x H in mm
LDP10001000	1,000	5,5	1 : 200	0,51	0,50	310 x 240 x 360
LDP10002000	1,000	2,5	1 : 400	0,51	0,18	310 x 240 x 490
LDP10003000	1,000	2,0	1 : 600	0,51	0,12	310 x 240 x 560

This demonstrated performance is the mostly used application. If another equipment option should be required, we are gladly ready to develop the solution suitable for you.

Standard

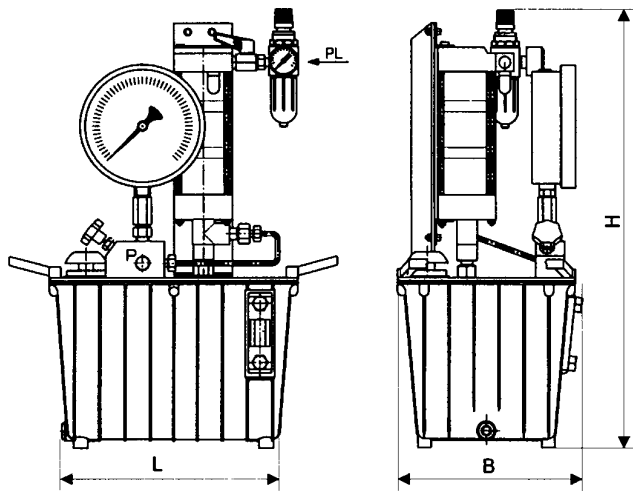
- Oil filled, proofed and decompressed
- Stress relief valve (pressure out flow) in the connector bolt
- 1 connector with high pressure fast-lock coupling

Options

- Safety valve (oil sided)
- Movable on wheels
- Tank capacity 13 l and/or 30 l
- Other connecting threads
see catalogue-sheet
- Other manometer
see catalogue sheet
- Manifold blocks
see catalogue sheet
- Other gear ratio as required
- High-pressure hoses
see catalogue
- Separate tank movement connector

Pressure generator

Air-Hydraulic-Pump 1,600 bar



LDP16001

Specification:

- ⇒ Pressure up to a maximum of **1,600** bar
- ⇒ 6,5 l tank capacity
- ⇒ transportable
- ⇒ Pressure exit ¼ BSP
- ⇒ Manometer 0-1,600 bar, Ø 100, Category 1.0, glycerinfilled, dial graduation 20 bar
- ⇒ Compression-air condition consisting of:
 - filter, water separator, pressure regulator, air pressure manometer
- ⇒ air pressure shutoff valve
- ⇒ safety valve air sided
- ⇒ pressure medium oil

Error, technical modification and omission excepted). Copyright DIN 34

Article-Number	Max. hydraulic-pressure in bar	Safety valve air sided	Gear ratio	Stroke volume (rated) in cm ³	Flow rate l/min	L x B x H in mm
LDP16001000	1,600	4,5	1 : 400	0,51	0,18	310 x 240 x 490
LDP16002000	1,600	3,0	1 : 600	0,51	0,12	310 x 240 x 560

This demonstrated performance is the mostly used application. If another equipment option should be required, we are gladly ready to develop the solution fitting for you.

Standard

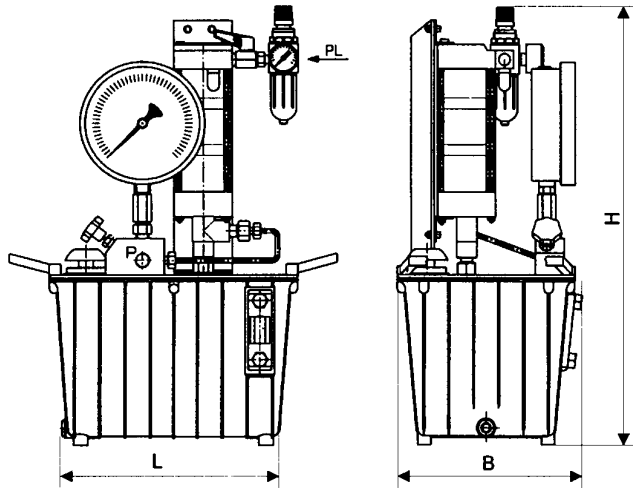
- Oil filled, proofed and decompressed
- Stress relief valve (pressure out flow) in the connector bolt
- 1 connector with high pressure fast-lock coupling

Options

- Safety valve (oil sided)
- Movable on wheels
- Tank capacity 13 l and/or 30 l
- Other connecting threads
see catalogue-sheet
- Other manometer
see catalogue sheet
- Manifold blocks
see catalogue sheet
- Other gear ratio as required
- High-pressure hoses
see catalogue
- Separate tank movement connector

Pressure generator

Air-Hydraulic-Pump 2,500 bar



LDP25001

Specification:

- ⇒ Pressure up to a maximum of **2,500** bar
- ⇒ 6,5 l tank capacity
- ⇒ transportable
- ⇒ Pressure exit ¼ BSP
- ⇒ Manometer 0-2,500 bar, Ø 100, Category 1.0, glycerinfilled, dial graduation 20 bar
- ⇒ Compression-air condition consisting of:
 - filter, water separator, pressure regulator, air pressure manometer
- ⇒ air pressure shutoff valve
- ⇒ safety valve air sided
- ⇒ pressure medium oil

Error, technical modification and omission excepted). Copyright DIN 34

Article-Number	Max. hydraulic-pressure in bar	Safety valve air sided	Gear ratio	Stroke volume (rated) in cm ³	Flow rate l/min	L x B x H in mm
LDP25001000	2,500	6,5	1 : 400	0,51	0,18	310 x 240 x 490
LDP25002000	2,500	4,5	1 : 600	0,51	0,12	310 x 240 x 560

This demonstrated performance is the mostly used application. If another equipment option should be required, we are gladly ready to develop the solution suitable for you.

Standard

- Oil filled, proofed and decompressed
- Stress relief valve (pressure out flow) in the connector bolt
- 1 connector with high pressure fast-lock coupling

Options

- Safety valve (oil sided)
- Movable on wheels
- Tank capacity 13 l and/or 30 l
- Other connecting threads
see catalogue-sheet
- Other manometer
see catalogue sheet
- Manifold blocks
see catalogue sheet
- Other gear ratio as required
- High pressure hoses
see catalogue
- Separate tank movement connector

Electro hydraulic aggregate EDP

The electric pressure generator is particularly optimized for fast continuous pressure generation combined with high flow rates.

A pressure of up to 2500bar can be reached with the AS Tech electro hydraulic aggregate EDP, at the same time achieving high flow rates. Optionally a bi-directional wireless remote control allows you to build up and release pressure as well as continually display the current pressure. Various equipment configurations are available allowing a perfect balance between your own operations, size and efficiency.

What exactly does the electric hydraulic aggregate do?

With the electric driven pump you can deliver a flow rate of up to 8l/min in the low-pressure range (up to 230 bar).

Above 230 bar the aggregate changes into high pressure range and can deliver a constant 0,9l/min.

The smaller flow rate serves only to reach the high pressure, all piston volumes such as the hoses have been completed in the low pressure range.

The pressure is built up and discharged by a cable remote control, discharging is also possible by a hand drain valve in cases of emergency.

Optionally the pump can be driven by our wireless remote control EZB 25001001. The wireless remote operates within a range of up to 300m, ensuring the highest security for personnel using high pressure hydraulics. The remote constantly displays the current pressure and applying as well as discharging pressure can be controlled.

The wireless remote is also the base unit required for automatic documentation. Sensor information is automatically logged in the remote control unit, which can be downloaded to a PC for automatic generation of printout or electronic documentation. For further information, check the product brochure for the wireless remote option.

An exact configuration table as well as technical details can be found on the following page.

Typical applications of the electro hydraulic aggregate are by assembling machines with a lot of screw connections or by drawing on bearings.



Design Abbreviation	EDP	XX	X	X	X	X	X	X	X
Pressure rating[bar]	Code number	16	X	X	X	X	X	X	X
1000	10								
1600	16								
2500	25								
Motor Voltage/ Frequency[V/Hz]	Code number	XX	1	X	X	X	X	X	X
110/60	0								
230/50	1								
360;460/50;60	2								
400	3								
Tank volume[l]	Code number	XX	X	2	X	X	X	X	X
20	2								
30	3								
Connectors	Code number	XX	X	X	2	X	X	X	X
1	1								
2	2								
4	4								
Transport type	Code number	XX	X	X	X	1	X	X	X
Carrying handle	0								
Carrying handle with frame	1								
Carrying handle with frame and sand sheet for slack soil	2								
mobile	3								
Mobile with frame	4								
Pressure reduction	Code number	XX	X	X	X	X	1	X	X
Manually actuated	0								
Electrically actuated	1								
Wireless Remote System	2								
Motor Power	Code number	XX	X	X	X	X	X	1	X
0,75 kW	0								
1,1 kW	1								
1,5 kW	2								

The advantages at a glance

- | | |
|--|--|
| - Independent operation by own power supply at any already existing plant / machine possible | - Various equipment available for optimized handling adapted to our customers requirements |
| - Optional wireless operation | - Effective fatigue-free working |
| - Automatic logging of the measured data | - Automatic archiving |
| - Real time documentation | - Pressures up to 2500 bar |
| - High flow rate | - Excel Export of recorded data |

IDP_2006_2-1
AS Tech Industrie- und Spannhydraulik GmbH – Leopold-Hoesch-Str. 5-7 – D-52511 Geilenkirchen

Tel. (+49) 02451-48202-0; Fax. (+49) 02451-48202-25; eMail: info@astech-hydraulik.com; internet: www.astech-hydraulik.com

Pressure intensifier up to 2500 bar



Technical data :

- Maximum pressure 2500 bar
- Flow rate volume 0.6 l/min
- Pressure ratio 1:13
- Infinite pressure adjustment from 200 bar to 2500 bar
- 2 or 4 consumer connections optional
- Equipped with quick-release couplings / nipples
- Rugged design with carrying handle
- Weight approx. 17 kg

The pressure converter HDU creates a maximum hydraulic pressure of **2500 bar** in conjunction with an existing low-pressure pump unit.

If, for example, you have used your low pressure pump unit in the past exclusively for hydraulic wrenches up to 700 bar, you can employ the pressure intensifier with the hydraulic pump for tensioning with bolt tensioning devices up to 2500 bar.

The unit operates with the flow rate of your pump unit up to 20 bar. From 20 bar low pressure, the pressure intensifier switches over automatically and supplies a continuous flow of 0.6 l/min up to 2500 bar.

The pressure converter is suitable for connection to **existing** hydraulic pump unit with supply/return functions made by **all manufacturers**.

The field of application of the pressure intensifier is almost boundless. It is used in all branches of industry requiring high-pressure hydraulic.

The pressure intensifier has particular advantages in applications where hand-lever pumps were employed. In these cases, the assembly times can be considerably shortened and work can be conducted without tiring.

Apart from bolt tensioning devices and hydraulic nuts, the typical applications include pushing on and pulling off shaft / hub connections.



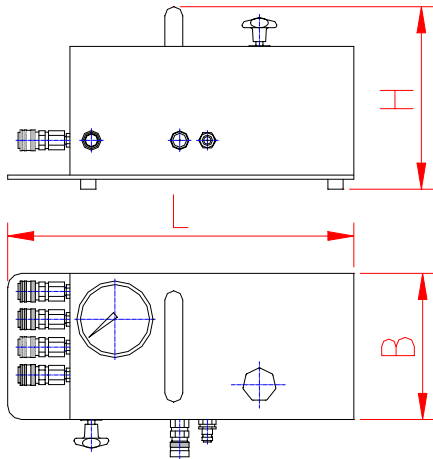
Convince yourself, please call us.

HDUPROSP-e2.doc

AS Tech Industrie- und Spannhydraulik GmbH – Leopold-Hoesch-Str. 5-7 – D-52511 Geilenkirchen
Tel. (+49) 02451-48202-0; Fax. (+49) 02451-48202-25; eMail: info@astech-hydraulik.com; internet: www.astech-hydraulic.com

Pressure generator

Pressure intensifier 1600 and 2500 bar



HDU 16 / 25.....

Features:

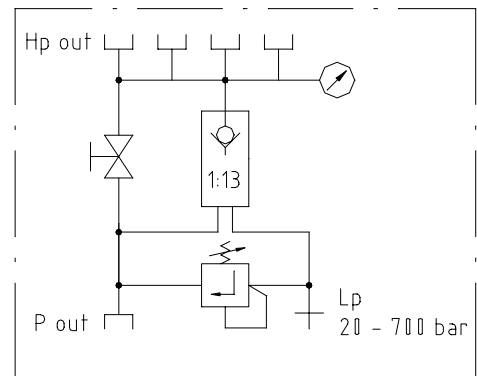
- ⇒ Maximum pressure up to **2500** bar
- ⇒ pressure ratio 1:13
- ⇒ For connection to continuously operating pump units from 20 bar to 700 bar
- ⇒ Matches all units for hydraulic torque wrench
- ⇒ Filtering 10 µm to ISO 4406
- ⇒ Pressure gauge, Ø 100, Cl. 1,0, glycerine-damped, graduation 20 bar
- ⇒ Pressure limiting valve adjustable
- ⇒ Rugged design with carrying handle
- ⇒ Weight approx. 17 kg

1600 bar HDU 16...

Article number	Flow rate in l/min		Operating pressure in bar		Dimensions		
	In max	Out max	In max	Out max	L	W	H
HDU16001002	12	0.6	700	1600	500	210	250
HDU16001004	12	0.6	700	1600	500	210	250

2500 bar HDU 25...

Article number	Flow rate in l/min		Operating pressure in bar		Dimensions		
	In max	Out max	In max	Out max	L	W	H
HDU25001002	12	0.6	700	2500	500	210	250
HDU25001004	12	0.6	700	2500	500	210	250



The last digit of the article number designates the **number of outlets**

The design shown here represents the most frequently employed unit. If a different design is required, we would be delighted to quickly produce a suitable solution for you.

Standard design

- Outlet: Manifold block with 2 or 4 high-pressure, fast-lock couplings
- Inlet: Connector block with fast-lock coupling and -nipple
- Manual pressure relief valve
- Oil-filled and tested
- Infinite pressure adjustment
- No further energy supply necessary

Options

- Other manifold blocks
- Other pressure gauges
- Other quick-release couplings
- Mobile

Pressure generator

Hand-lever-grease gun and accessories

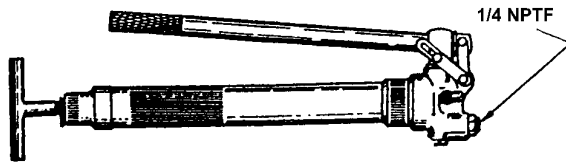


Fig. FDP10001001 without manometer

FDP

Specification:

- ⇒ Max pressure up to **1,000** bar
- ⇒ Pressure media grease
- ⇒ Single-stage
- ⇒ For grease cartridge
- ⇒ With manometer
- ⇒ With depressurisation valve

Hand-lever-grease gun FDP...

Article-number	Pressure area	Connector thread inner
FDP04001001	0 - 400 bar	1/4 NPTF
FDP07001001	0 - 700 bar	1/4 NPTF
FDP10001001	0 - 1000 bar	1/4 NPTF

Grease hoses FUH...

Article-number	Length in mm	Mounted with grease coupling
FUH10001003	300	-
FUH10002003	300	FUK10001001
FUH10001005	500	-
FUH10002005	500	FUK10001001

Grease coupling FUK

Article-number	Connector thread
FUK10001001	1/8 NPTF innen



Grease nipple FUN

Article-number	Connector thread
FUN10001001	1/8 NPTF außen



This demonstrated performance is the mostly used application. If another equipment option should be required, we are gladly ready to develop the solution suitable for you. Also see equipment variations as well as accessories .