

Metering Technology



DOPAG Drum and Transfer Pumps



Hilger u. Kern / Dopag Group

Precise and clean



DOPAG drum pumps are chop check pumps. They feed single component media such as greases, oils, adhesives, sealing compounds, polyurethane, silicone etc. with viscosity levels up to 5.0 million mPa s directly and cleanly from original containers.

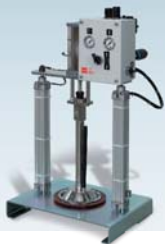
DOPAG drum pumps have proved themselves particularly useful as central material supply systems as well as being able to supply single stations.

DOPAG drum pumps are manufactured as modular, robust and fail-safe, as well as remarkably service and maintenance friendly.

Product features

- Double acting, fast change-over air motor
- Single or twin ram pump elevator
- 2-hand safety operation
- Self venting
- Chemical resistant seals
- Hard chrome plated pistons
- Adjustable sleeve seals
- Hard teflon seal kit
- Flow rate up to 6 litres/minute
- Pressure ratio up to 75:1

DOPAG Drum pumps



Drum pump P10

| | |
|------------------------|--|
| Flow rate: | 4,75 and 14,5 cm ³ per double stroke |
| Max. viscosity: | 200 - 800.000 mPa s |
| Pressure ratio: | 11:1 - 37:1 |
| Max. working pressure: | 160 - 250 bar |
| Container size: | Ø 86 - 265 mm |
| Cartridge: | Ø 40 / 46 / 48 mm |



Drum pump P30

| | |
|------------------------|---|
| Flow rate: | 32 cm ³ per double stroke |
| Max. viscosity: | 2.500.000 mPa s |
| Pressure ratio: | 33:1 |
| Max. working pressure: | 250 bar |
| Container size: | Ø 275 - 400 mm |



Drum pump P80

| | |
|------------------------|---|
| Flow rate: | 30,7 cm ³ per double stroke |
| Max. viscosity: | 5.000.000 mPa s |
| Pressure ratio: | 56:1 |
| Max. working pressure: | 315 bar |
| Container size: | Ø 275 - 400 mm |



Drum pump P200

| | |
|------------------------|---|
| Flow rate: | 30 - 300 cm ³ per double stroke |
| Max. viscosity: | 5.000.000 mPa s |
| Pressure ratio: | 22 / 48 / 56 / 75:1 |
| Max. working pressure: | 250 - 400 bar |
| Container size: | Ø 275 - 575 mm |

DOPAG Transfer pump for wall mounting



Transfer pump FP300 for wall mounting

| | |
|------------------------|--|
| Flow rate: | 300 cm ³ per double stroke |
| Max. viscosity: | 50.000 mPa s |
| Pressure ratio: | 11 / 23 / 37:1 |
| Max. working pressure: | 250 bar |

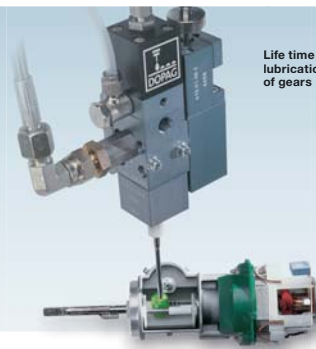
DOPAG Bung-mounted pumps

Bung-mounted pumps TP

| | |
|------------------------|---|
| Flow rate: | 40 - 112 cm ³ per double stroke |
| Max. viscosity: | 50.000 mPa s |
| Pressure ratio: | 7,6 / 21:1 |
| Max. working pressure: | 160 bar |
| Container size: | 20 / 60 / 200 liter |







Application examples single component metering



Life time
lubrication
of gears



Greasing of
synthetic
components

| Technical data | Drum pumps | | | | | | | | | | Bung-mounted pumps | | | | Transfer pump | |
|---|---|-------------------|---|-------------|--|-------------|-------------|--|-----------------|---|--------------------|--|--------|--------|---------------|---|
| |  | |  | |  | | |  | |  | |  | | | |  |
| Description | P10/1 | P10/2 | P30-E | P30 | P80-E | P80 | P80-SV | P200-E | P200 | P200-SV | P200-H | TP20 | TP60 | TP200 | TP200 | FP300 |
| Performance / Consumption | | | | | | | | | | | | | | | | |
| Pressure ratio | 11:1 / 37:1 | 11:1 / 37:1 | 33:1 | 33:1 | 56:1 | 56:1 | 56:1 | 22/48/56:1 | 22/48/56/75:1 | 48:1 / 75:1 | 6:4:1 | 21:1 | 21:1 | 7,6:1 | 21:1 | 11:1/23:1/37:1 |
| Maximum viscosity (mPa s) | 0,2 - 0,5 Million | 0,2 - 0,8 Million | 2,5 Million | 2,5 Million | 2,5 Million | 2,5 Million | 5,0 Million | 2,5/5,0 Million | 2,5/5,0 Million | 5,0 Million | 5,0 Million | 50.000 | 50.000 | 50.000 | 50.000 | 50.000 |
| Flow rate (l/min) at 20 double strokes* | 0,25 / 0,095 | 0,25 / 0,095 | 0,64 | 0,64 | 0,614 | 0,614 | 0,614 | 0,6 / 3 | 0,6 / 3 / 6 | 3 / 6 | 3 / 6 | 0,8 | 0,8 | 2,24 | 0,8 | 6 |
| Working pressure (bar) | 20 - 160 | 20 - 160 | 20 - 160 | 20 - 160 | 20 - 250 | 20 - 250 | 20 - 250 | 20 - 250 | 20 - 250 | 20 - 250 | 20 - 250 | 100 | 100 | 40 | 100 | 160 |
| Maximum working pressure (bar) | 160 / 250 | 160 / 250 | 250 | 250 | 315 | 315 | 315 | 250 - 400 | 250 - 400 | 250 - 400 | 250 - 400 | 160 | 160 | 100 | 160 | 250 |
| Air consumption (l/min) at 20 double strokes / 6 bar | 22 | 22 | 142 | 142 | 220 | 220 | 220 | 220 - 900 | 220 - 1.400 | 220 - 1.400 | 50 | 142 | 142 | 142 | 142 | 450/900/1400 |
| Dimensions / Weight | | | | | | | | | | | | | | | | |
| Height on start-up in drum (mm) | 870 | 777 | 1056 | 1056 | 1400 | 1400 | 1580 | 1650 | 1650 | 1650 | 1850 | 917 | 1150 | 1438 | 1438 | 1040 |
| Height extended (mm) | 1100 | 1127 | 1540 | 1540 | 2200 | 2200 | 2380 | 2600 | 2600 | 2700 | 2600 | - | - | - | - | - |
| Base plate L x W (mm) | 250 x 310 | 410 x 300 | 610 x 500 | 610 x 500 | 610 x 500 | 610 x 500 | 750 x 550 | 900 x 600 | 900 x 600 | 1000 x 750 | 910 x 1000 | - | - | - | - | - |
| Pump size (mm) | 280 | 280 | 430 | 430 | 525 | 525 | 525 | 525 / 865 | 525 / 865 | 865 | 865 | 339 | 577 | 860 | 860 | 600 |
| Weight without container (kg) | 17,5 | 22 | 60 | 67 | 75 | 75 | 90 | 205 - 240 | 205 - 250 | 350 | 380 | 16 | 16 | 16 | 16 | 38 / 42 / 46 |
| Maximum container height (mm) | 400 | 340 | 450 | 450 | 750 | 750 | 750 | 880 | 880 | 880 | 880 | 339 | 577 | 860 | 860 | - |
| Container size (l) | 10 | 10 | 30 | 30 | 80 | 80 | 80 | 200 | 200 | 200 | 200 | 20 | 60 | 200 | 200 | - |
| Container-Ø (mm) | 86 / 260 | 86 / 260 | 275 - 400 | 275 - 400 | 275 - 400 | 275 - 400 | 275 - 400 | 275 - 575 | 275 - 575 | 566 - 575 | 566 - 575 | 339 | 577 | 860 | 860 | - |
| Cartridges-Ø (mm) | 40 / 46 / 48 | 40 / 46 / 48 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Equipment | | | | | | | | | | | | | | | | |
| Drum roll-in mechanism or drum roller conveyor | - | - | - | - | - | - | - | ○ | ○ | ○ | ○ | - | - | - | - | - |
| Drum centring on the base plate | - | - | ● | ● | ● | ● | ● | ● | ● | ● | ● | - | - | - | - | - |
| Level monitoring | - | - | ○ | ○ | ○ | ○ | ○ | - | - | - | - | - | - | - | - | - |
| Level monitoring with automatic shut-off device and audible / alarm for drum changing | - | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | - | - | - | - | - |
| Material supply without interruption | - | - | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | - | - |
| Follower plate | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | - | - |
| Wetted parts made of stainless steel | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Wetted parts highly wear resistant | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Oil brake cylinder | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PLC contro | - | - | - | - | - | - | - | - | - | - | - | ○ | - | - | - | - |
| 1-hand operation | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | - | - | - | - | - |
| 2-hand security operation | - | - | - | ● | ● | ● | ● | ● | ● | ● | ● | - | - | - | - | - |
| ATEX / UL | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

Key to symbols:

- = Standard
 - = Optional
 - = Not available
 - E = Economy version
 - SV = Version with larger rams
 - H = Hydraulic
 - * = The number of double strokes is dependent upon the viscosity
- 1 bar = 14,5 psi / 0,1 MPa

All pumps conform to CE 

Drum pump with follower plate

A drum pump with a follower plate is used for processing medium to high-viscosity media. The follower plate is made of aluminium, steel or cast iron.

The follower plate is manufactured with elastomer wipers for efficiently wiping the inside walls of the drum clean during use. The wipers adjust to the diameter of the container.

Bung-mounted pump with cover plate

When processing low viscosity media, a follower plate is not necessary for priming purposes.

The cover plate is used only as a protection against contamination of the medium to be fed.

Level monitoring

This control unit ensures that the pump does not draw in air when the drum is empty.

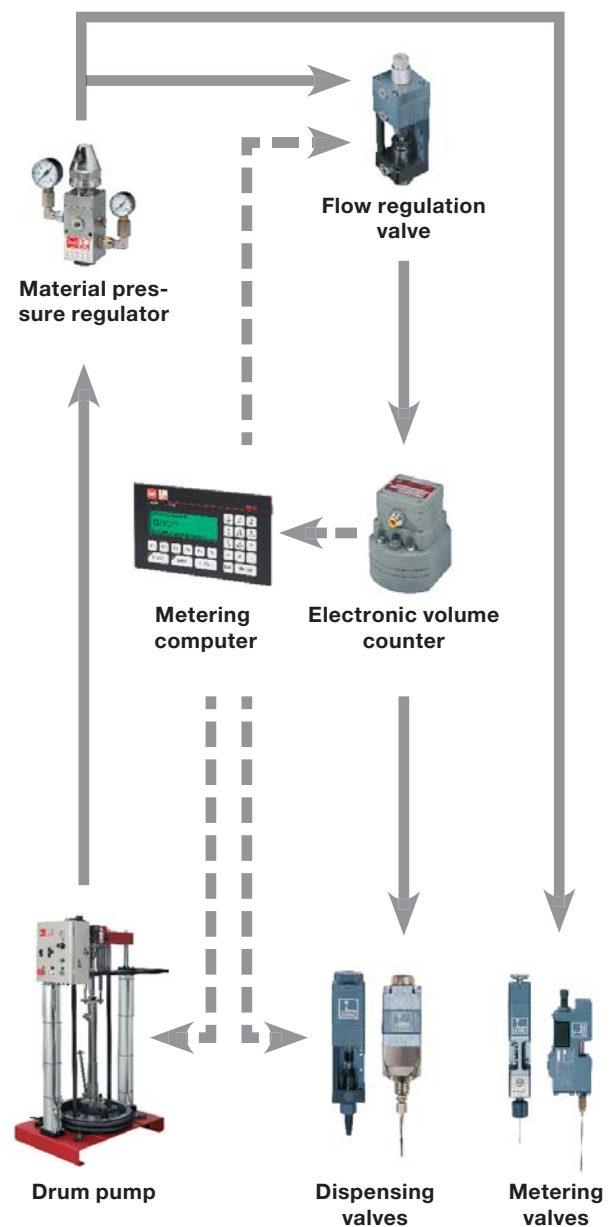
When the minimum level is reached the pump will shut down automatically.

An audible alarm is emitted when the drum becomes empty.

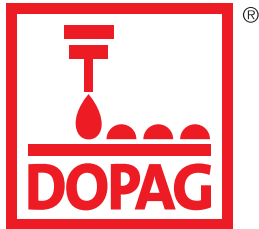
Options

- External valves
The drum pump P200 can be supplied with external valves as an option.
- This new design offers the advantage of being able to carry out service and maintenance work on the pump without having to drain the system.
- Wetted parts made of stainless steel or with specific surface treatment

1K system concept



Hilger u. Kern / Dopag Group



The Hilger u. Kern / Dopag Group, with more than 250 employees, is one of the leading manufacturers of metering and mixing systems in the world for plural component polymers and single component media such as greases, oils and pastes.

Germany

Hilger u. Kern GmbH
Industrietechnik
Käfertaler Straße 253
68167 Mannheim

☎ +49 621 3705-0
📠 +49 621 3705-200
info@hilger-kern.de
www.hilger-kern.com

Switzerland

DOPAG Dosiertechnik
und Pneumatik AG
Langackerstrasse 25
6330 Cham

☎ +41 41 7855-757
📠 +41 41 7855-700
info@dopag.ch
www.dopag.com

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Subsidiaries

France

DOPAG Sarl
contact@dopag.fr

China

Hilger u. Kern Trading Co., Ltd.
office@hilger-kern.cn

Italy

DOPAG ITALIA S.r.l.
info.it@dopag.com

Malaysia

DOPAG FAR EAST SDN BHD
info@dopag.com.my

United Kingdom

DOPAG (UK) Ltd.
uksales@dopag.co.uk

USA

DOPAG (US) Ltd.
ussales@dopag.com

Please visit our internet page to find the contact data of your local partner (Sales and Service Organisation).