

DOPAG Drum and Transfer Pumps

Precise and clean pumping directly from the original container



Hilger u. Kern / Dopag
Metering Technology

Material supply

DOPAG drum pumps are chop check pumps. They transfer single component media such as greases, oils, adhesives, sealing compounds, polyurethane, silicone etc. with viscosity levels up to 5 million mPa s directly and cleanly from the original container.

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

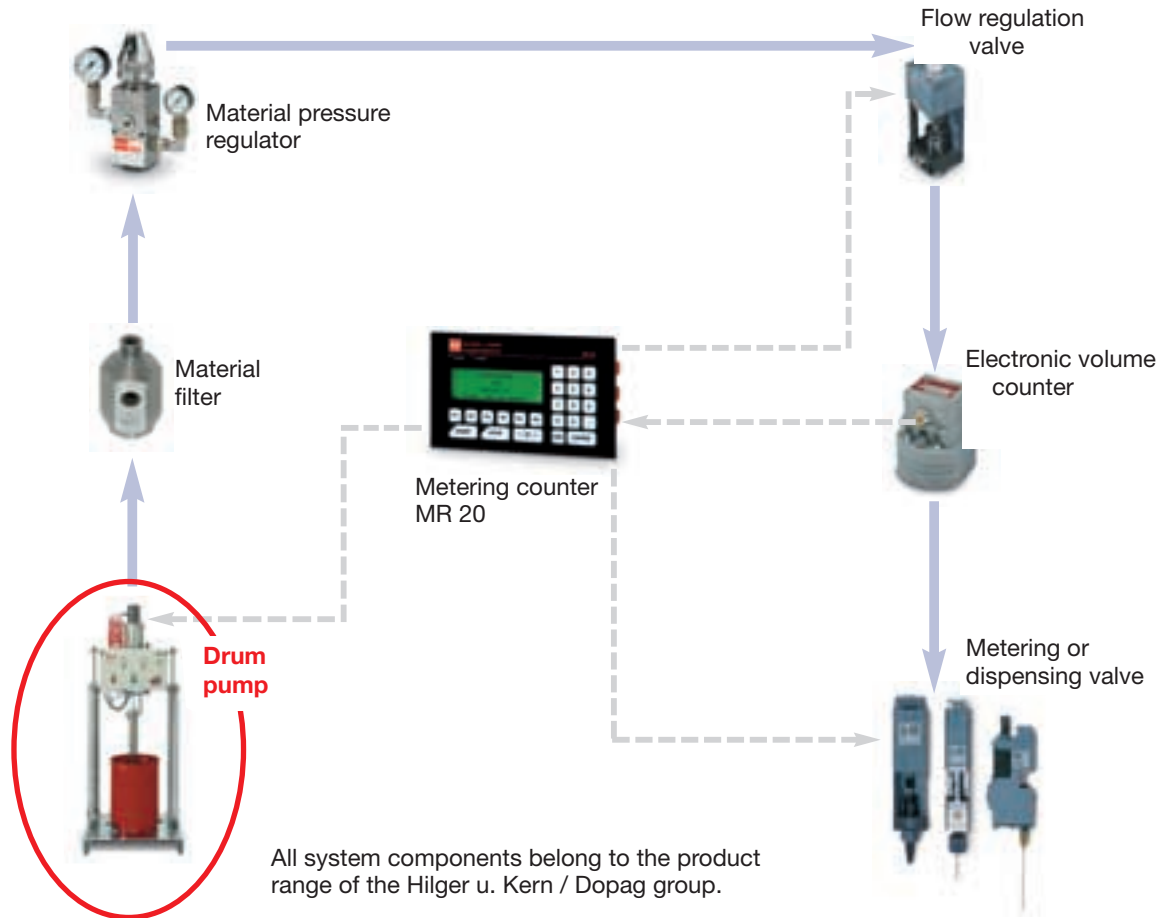
DOPAG drum pumps are manufactured as modular, robust and fail-safe, as well as remarkably service and maintenance friendly.

Product data

- twin ram with a quick change-over air motor
- single or twin ram pump elevator
- 2-hand safety operation
- self venting
- chemical compatible seals
- hard-chromium plated pistons
- adjustable sleeve seals
- hard Teflon seal kit
- flow rate up to 6 l/min.
- maximum pressure ratio 75:1



System concept for single component metering



Drum change

The pump unit can be raised by the use of two lifting cylinders in order to remove the empty drum. A fresh drum can then be placed underneath the pump.

When the pumping set has been lowered correctly, the pump can be started.

Drum Pump with follower plate

A drum pump with a follower plate is used for processing medium to high-viscosity media.

After lowering the pump into the drum the follower plate will lie on top of the medium to be pumped. This imparts pressure onto the surface of the material so that the pump is always fully primed with material.

The pump can be operated only if the follower plate is in the correct position.

The follower plate is made of aluminium 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.

Drum Pump with cover plate

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

A proximity switch ensures that starting the pump is only possible if the pumping set has been lowered completely into the drum.

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.

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

**Application examples,
single component metering**



**Greasing of synthetic
components**



Bead laying

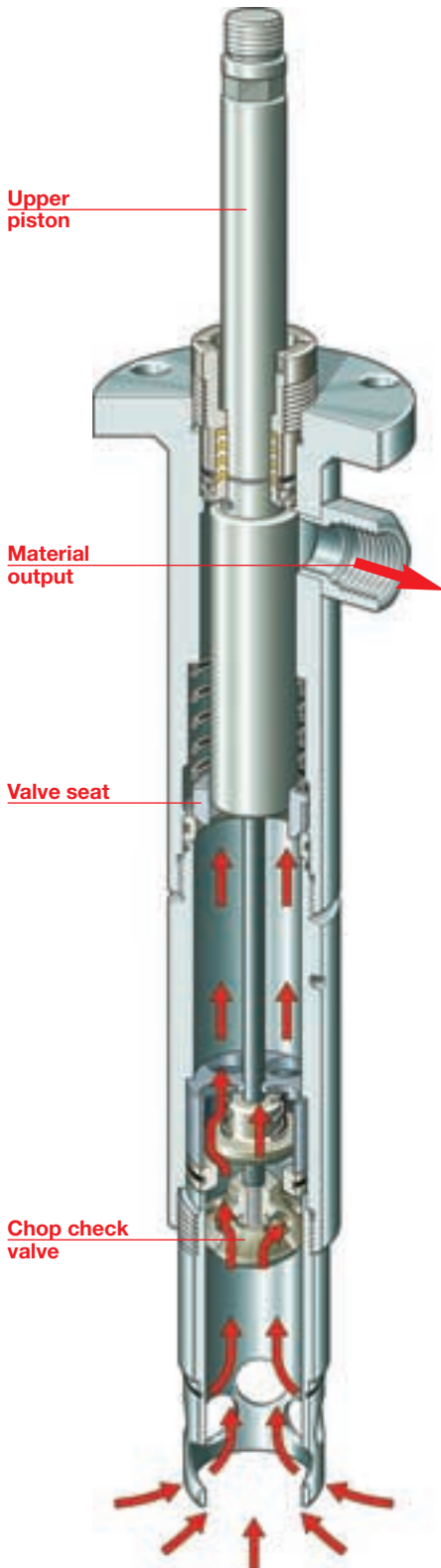


Lifetime lubrication of gears



Automatic spot-greasing

Drum Pump profile



Upper piston

Material output

Valve seat

Chop check valve

More technical information see index on page 8 - 9.

DOPAG Chop check pumps



Drum Pump P10

Flow rate: 4,75 and 14,5 cm³ per double stroke
 Maximum viscosity: 200 – 800.000 mPa s
 Pressure ratio: 11:1 – 37:1
 Working pressure: 160 – 250 bar
 Container size: Ø 86 – 265 mm
 Cartridge: Ø 40 / 46 / 48 mm



Drum Pump P

Flow rate:
 Maximum viscosity:
 Pressure ratio:
 Working pressure:
 Container size:

Drum Pump P80

Flow rate: 30,7 cm³ per double stroke
 Maximum viscosity: 5.000.000 mPa s
 Pressure ratio: 56:1
 Working pressure: 315 bar
 Container size: Ø 275 – 400 mm



DOPAG Chop check pumps



Drum Pump P200

Flow rate: 30 – 300 cm³
per double stroke
Maximum viscosity: 5.000.000 mPa s
Pressure ratio: 22 / 48 / 56 / 75:1
Working pressure: 400 bar
Container size: Ø 275 – 575 mm

30

32 cm³
per double stroke
2.500.000 mPa s
33:1
250 bar
Ø 275 – 400 mm



Drum Pump P200-H

Flow rate: 150 – 300 cm³
per double stroke
Maximum viscosity: 5.000.000 mPa s
Pressure ratio: 64:1
Working pressure: 400 bar
Container size: Ø 575 mm

All Pumps conform to CE



DOPAG Transfer pump for wall mounting



Transfer pump FP300 for wall mounting

Flow rate:	300 cm ³ per double stroke
Maximum viscosity:	50.000 mPa s
Pressure ratio:	11 / 23 / 37:1
Working pressure:	250 bar

DOPAG Bung-mounted pumps



Bung-mounted pumps

Flow rate:	40 – 112 cm ³ per double stroke
Maximum viscosity:	50.000 mPa s
Pressure ratio:	7,6 / 21:1
Working pressure:	160 bar
Container size:	20 / 60 / 200 litre



More technical information see
index on page 8 - 9.

Technical data

Chop check pump



Description	P10/1	P10/2	P30-E	P30	P80	P80-SV
Performance						
pressure ratio	11:1 / 37:1	11:1 / 37:1	33:1	33:1	56:1	56:1
maximum viscosity (mPa s)	0,2 - 0,5 Mio.	0,2 - 0,8 Mio.	2,5 Mio.	2,5 Mio.	5,0 Mio.	5,0 Mio.
flow rate (cm ³ per double stroke)	14,5 / 4,75	14,5 / 4,75	32	32	30,7	30,7
maximum stroke rate (double stroke)	20	20	20	20	20	20
working pressure (bar)	20 - 160	20 - 160	20 - 160	20 - 160	20 - 250	20 - 250
maximum working pressure (bar)	160 / 250	160 / 250	250	250	315	315
Air connection / Consumption						
compressed air connection (inch)	BSP 1/4	BSP 1/4	BSP 1/4	BSP 1/4	BSP 1/4	BSP 1/4
pump outlet connection	BSP 1/4	BSP 1/4	BSP 1/2	BSP 1/2	BSP 1/2	BSP 1/2
initial pressure (bar)	6	6	6	6	6	6
air consumption (lt/min), 20 double strokes	22	22	142	142	220	220
Dimensions / Weight						
height on start-up in drum (mm)	870	670	1040	1040	1450	1580
height extended (mm)	1100	970	1540	1540	2150	2380
base plate L x W (mm)	250 x 310	370 x 300	610 x 500	610 x 500	610 x 500	750 x 550
pump size (mm)	280	280	430	430	525	525
weight without container (kg)	17,5	22	60	67	90	75
maximum container height (mm)	400	290	450	450	750	750
container size (lt)	10	10	30	30	80	80
container-Ø (mm)	86 / 265	86 / 265	275 - 400	275 - 400	275 - 400	275 - 400
cartridges	Ø 40/46/48	Ø 40/46/48				
Fittings						
pump mobile	-	-	-	-	-	-
pump mobile	-	-	●	●	●	●
drum-centring on the base plate	-	-	●	●	●	●
level-monitoring	-	-	-	○	○	○
level monitoring with automatic shut-off device and audible alarm for drum changing	-	●	●	●	●	●
maintenance unit with pressure regulator and oil mist lubricator	●	●	●	-	-	-
maintenance unit with water separator, pressure regulator, oil mist lubricator	-	-	-	●	●	●
follower plate	○	○	○	○	○	○
cover plate	-	-	-	-	-	-
wetted parts made of stainless steel	○	○	○	○	○	○
wetted parts highly wear resistant	○	○	○	○	○	○
oil brake cylinder	-	-	-	-	*○	-
1-hand operation	●	●	●	-	-	-
2-hand security operation	-	-	-	●	●	●

Key to symbols:

- = standard
- = optional
- = not available

- E = economy version
- SV = version with larger rams
- H = hydraulic



Bung-mount pumps



Transfer pumps



P200-E	P200	P200-SV	P200-H	TP 20	TP 60	TP 200	TP 200	FP 300
22/48/56:1 5,0 Mio. 30 / 150 20 20 - 250 400	22/48/56/75:1 5,0 Mio. 30 / 150 / 300 20 20 - 250 400	48:1 / 75:1 5,0 Mio. 150 / 300 20 20 - 250 400	6,4:1 5,0 Mio. 150 / 300 20 20 - 250 400	21:1 50.000 40 20 100 160	21:1 50.000 40 20 100 160	7,6:1 50.000 112 20 40 100	21:1 50.000 40 20 100 160	11:1/23:1/37:1 50.000 300 20 160 250
BSP 1/4 BSP 1/2 / BSP 1 6 220 - 900	BSP 1/2 BSP 1/2/BSP 1/BSP 1 1/4 6 220 - 1.400	BSP 1/2 BSP 1/BSP 1 1/4 6 220 - 1.400	Hydr. 3 x 400 V 2,2 kW BSP 1/BSP 1 1/4 6 50	BSP 3/8 BSP 1/2 6 142	BSP 3/8 BSP 1/2 6 142	BSP 3/8 BSP 3/4 6 142	BSP 3/8 BSP 1/2 6 142	BSP 1/2/BSP 1 BSP 1 1/4 6 450/900/1400
1650 2600 900 x 600 525 / 865 205 - 240 880 200 275 - 575	1650 2600 900 x 600 525 / 865 205 - 250 880 200 275 - 575	1650 2700 1000 x 750 865 350 880 200 566 - 575	1850 2600 910 x 1000 865 380 880 200 566 - 575	917 - - 339 16 339 20 339	1.150 - - 577 16 577 60 577	1.438 - - 860 16 860 200 860	1.438 - - 860 16 860 200 860	1040 - - 600 38 / 42 / 46 - -
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All Pumps confirm to CE



The Hilger u. Kern / Dopag group is one of the leading manufacturers of machines for metering and mixing systems in the world for plural component polymers and single component media such as greases, oils and pastes. For over 25 years the group has developed machines, systems, and components to suit your individual needs.

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