

## 1.5 Chemical Transfer Pumps

### 1.5.4

#### Air-Operated Diaphragm Pump Duodos

Duodos pumps are air-driven double diaphragm transfer pumps. No electrical components are required.

Capacity range up to 6,700 l/h, discharge lift up to 70 m WC

Air-operated Diaphragm Pump Duodos for pumping liquid media.

The pump capacity of the pump can be controlled by changing the pressure in the air supply. The air control is designed for oil-free operation. Duodos pumps are ideally suited for the transport of liquid chemicals. Duodos pumps transport media at up to 6,700 l/h and up to a discharge lift of 70 m. As the pump capacity is highly dependent on the back pressure, the performance curve must always be observed. At the same time, the differential pressure between the hydraulic and pneumatic sides should not exceed 2 bar. Higher values reduce the service life of the pump. When selecting pumps, check the material compatibility. In addition, consider the density, viscosity and temperature of the transported medium.

#### Your benefits

- No electrical components are required because the pumps are air-operated
- Duodos pumps are run-dry safe and self-priming

#### Technical Details

- Maximum air pressure 7 bar
- The air control is designed for oil-free operation
- If the back pressure is greater than the air pressure in the pump, the pump remains stationary

#### Field of application

- Pumping of liquid chemicals

The following materials are available:

- PP pump chambers with Santoprene® diaphragms and valves
- PVDF pump chambers with PTFE diaphragms and valves

#### Duodos PP

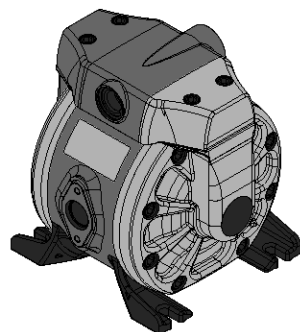
	Housing material	Diaphragms/ valves	Delivery rate (2 bar differential pressure) l/h	Order no.
<b>Duodos 20 PPS</b>	PP	Santoprene®	0...1,200	1103381
<b>Duodos 50 PPS</b>	PP	Santoprene®	0...3,000	1103384
<b>Duodos 100 PPS</b>	PP	Santoprene®	0...6,000	1103383
<b>Duodos 200 PPS</b>	PP	Santoprene®	0...12,000	1103377

#### Duodos PVDF

	Housing material	Diaphragms/ valves	Delivery rate (2 bar differential pressure) l/h	Order no.
<b>Duodos 20 PVT</b>	PVDF	PTFE	0...1,200	1103378
<b>Duodos 50 PVT</b>	PVDF	PTFE	0...3,000	1103382
<b>Duodos 100 PVT</b>	PVDF	PTFE	0...6,000	1103379
<b>Duodos 200 PVT</b>	PVDF	PTFE	0...12,000	1103380

#### Parameters For Use

	Min. temperature °C	Max. temperature °C	Max. viscosity mPas
<b>Duodos 100 PPS</b>	10	80	200
<b>Duodos 100 PVT</b>	-13	93	200
<b>Duodos 20 PPS</b>	10	80	200
<b>Duodos 20 PVT</b>	-13	93	200
<b>Duodos 200 PPS</b>	10	80	200
<b>Duodos 200 PVT</b>	-13	93	200
<b>Duodos 50 PPS</b>	10	80	200
<b>Duodos 50 PVT</b>	-13	93	200

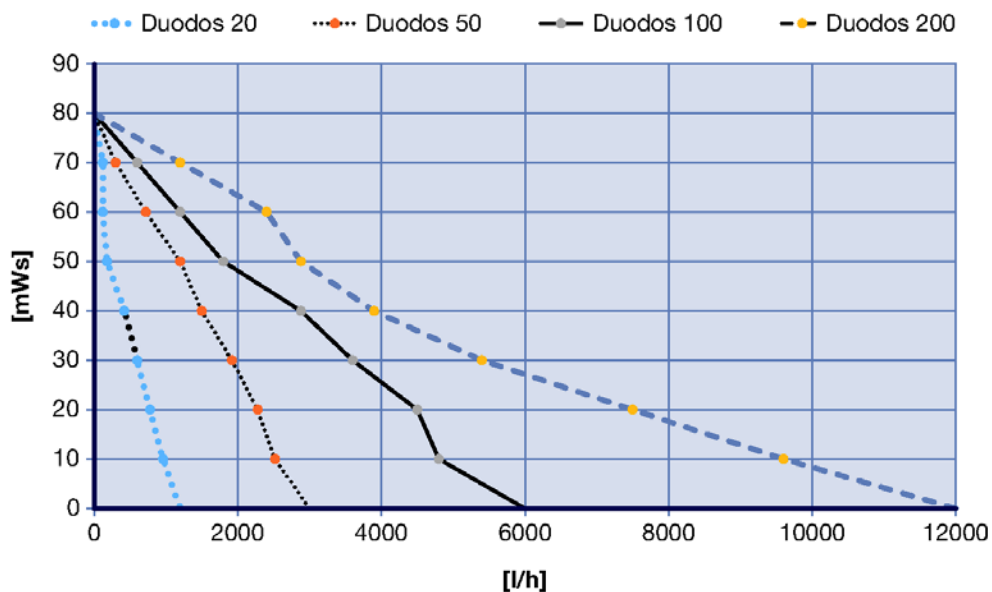


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# 1.5 Chemical Transfer Pumps

## Characteristic Curves



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Feed lift [m WC] over feed rate [l/h] at 7 bar air supply

## Spare Parts Kits

### Spare part kits for pneumatics comprising

- Seals
- O-rings
- Clamp collars
- Air control valve

	Order no.
Spare parts kit, pneumatics for Duodos 20 PPS/PVT	1103386
Spare parts kit, pneumatics for Duodos 50 PPS/PVT	1103387
Spare parts kit, pneumatics for Duodos 100 PPS/PVT	1103388
Spare parts kit, pneumatics for Duodos 200 PPS/PVT	1103389

### Spare part kits for the liquid end comprising

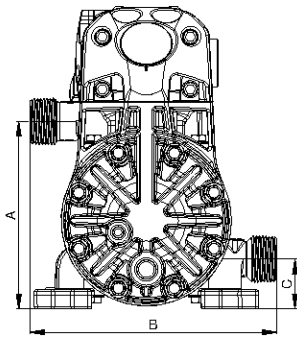
- Diaphragms
- Valve balls
- Seals

	Order no.
Spare parts kit, liquid end for Duodos 20 PPS	1103391
Spare parts kit, liquid end for Duodos 50 PPS	1103390
Spare parts kit, liquid end for Duodos 100 PPS	1103393
Spare parts kit, liquid end for Duodos 200 PPS	1103392
Spare parts kit, liquid end for Duodos 20 PVT	1103394
Spare parts kit, liquid end for Duodos 50 PVT	1103396
Spare parts kit, liquid end for Duodos 100 PVT	1103395
Spare parts kit, liquid end for Duodos 200 PVT	1103397

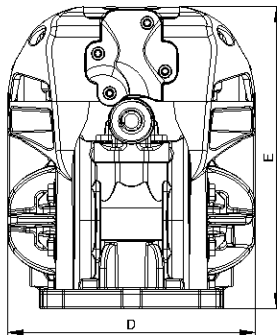
## 1.5 Chemical Transfer Pumps

### Dimensions

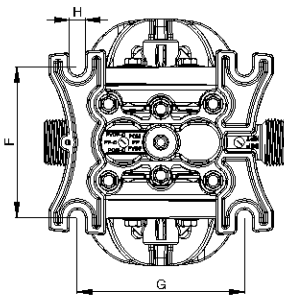
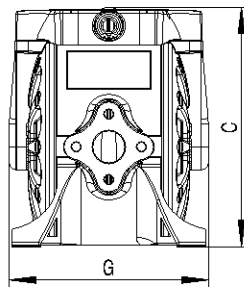
		Duodos 20	Duodos 50	Duodos 100	Duodos 200
<b>A</b>	mm	108	156	216	311
<b>B</b>	mm	142	160	218	320
<b>C</b>	mm	29	185	230	60
<b>D</b>	mm	142	105	175	295
<b>E</b>	mm	173	122	154	364
<b>F</b>	mm	86	8	8	9
<b>G</b>	mm	96	141	184	-
<b>H</b>	mm	9	70	95	-
<b>K</b>	mm	-	166	212	-
<b>M</b>	mm	-	24	62	-
<b>Discharge connector</b>		1/4" NPT (F)	1/2" BSP	1" BSP	DN 25
<b>Suction connector</b>		3/4" NPT (M)	1/2" BSP	1" BSP	DN 25
<b>Air consumption</b>	m³/h	0.6...18	1.2...24	1.8...30	3.0...78
<b>Differential pressure</b>	bar	2	2	2	2
<b>Air connection</b>		3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)
<b>Weight (PP)</b>	kg	1.2	2.2	5.1	10.5
<b>Weight (PVDF)</b>	kg	1.7	2.7	5.6	11



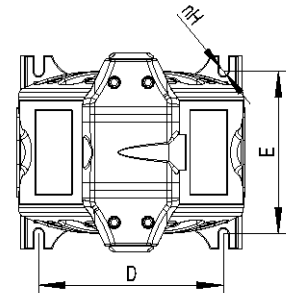
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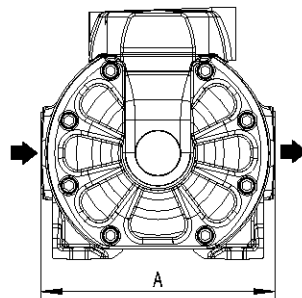
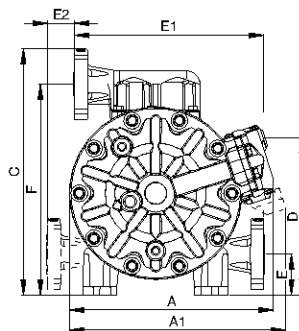
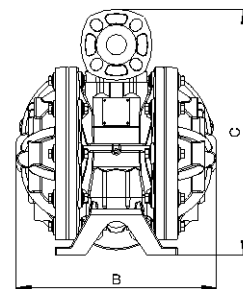
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P\_DUO\_0009\_SW1  
Duodos 20

P\_DUO\_0013\_SW1



P\_DUO\_0014\_SW1

P\_DUO\_0016\_SW1  
Duodos 50, 100P\_DUO\_0010\_SW1  
Duodos 200

P\_DUO\_0011\_SW1

