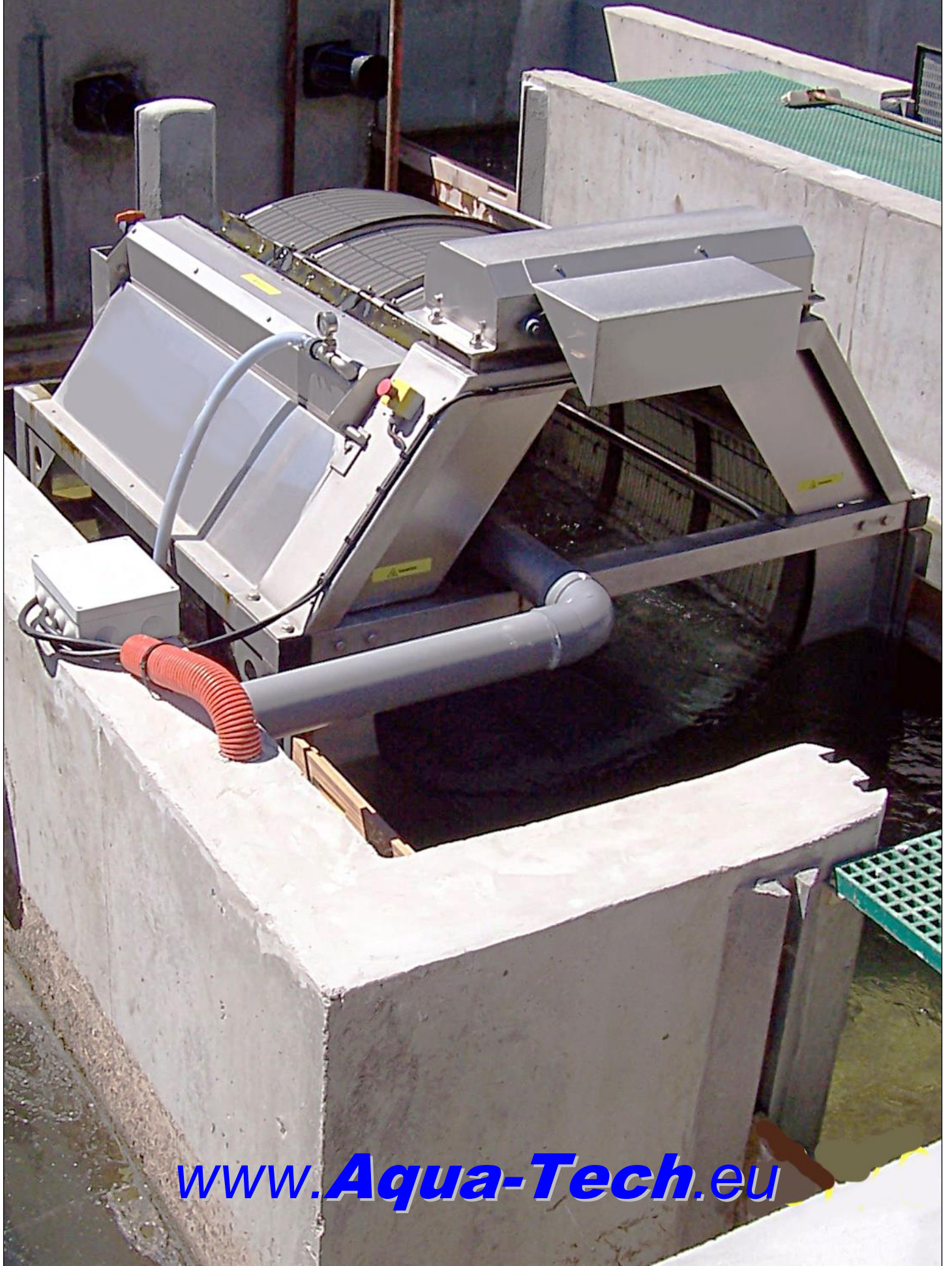


Drum Filter



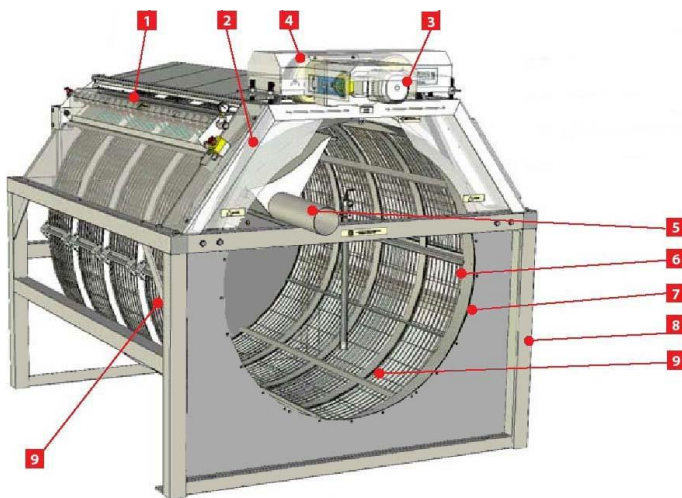
www.Aqua-Tech.eu

Drum Filter

Overview

Drumfilters are especially suitable for mechanical cleaning of waste-water with low to medium contents of suspended solids, particularly at in-/outlets of fish farms and fish ponds and especially in recirculating aquaculture systems (RAS).

The operating system of this special drum-filter is pretty simple but very effective. The water to be filtered is directed by gravity into a rotating drum. The outer surface of the drum is constructed with a number of exchangeable frames covered with fine mesh screens. The filter plates are integrated into a strong framework, so replacement of screens is possible in a few minutes. Particles larger than the perforations, unable to pass through the mesh are retained in the drum as the water passes through the filter from inside to outside, without pressure (head loss max. 10 cm). The slowly rotating drum lifts them outside of the water, where a cleaning pump cleans the screen by special nozzles and discharges the solids by gravity through a discharge ramp. Optionally, a control box and an adjustable timer or better and automatic water level sensor can be supplied, which activates the drum rotation and cleaning pump only if the filter screen is clogged and the water level in the filter rises. This allows to keep energy and water consumption low and guarantees that the system cleans just when necessary.



This professional drum filters are engineered for their specific duty, due to their rugged construction. They are constructed with minimum moving parts, so maintenance is reduced to a minimum. A gear motor **3** over a belt **2** with drive and support system **4**, rotates the drum **9** with filter plates **6**, and is tightened with a rubber seal **7** against a frame **8**. A reversible rinsing ramp **1** with optimized spray nozzles, cleans the screen and the discharged waste/sludge is collected in the discharge ramp with pipe connection **5** (changes reserved).

We offer a complete product range of drum filters with drum diameters of 40-200 cm and 1-40 filter plates with mesh screens of 10-100 micro meter (μm), which have a water flow capacity of up to 900 l/s resp. 3.240 m^3/h . The filters are each available in different construction materials: Niro-steel (4301) for fresh-water, Inox-steel (4404) for cold brackish and salt-water ($<25\text{ }^\circ\text{C}$), Duplex-steel (2205) for warm sea-water ($<30\text{ }^\circ\text{C}$), and Super-steel (2507) plus titanium and high-density polyethylene (HD-PE) for hot sea-water ($>30\text{ }^\circ\text{C}$).






















Quality for reasonable prices!

AquaTech

A-6370 Kitzbühel/Austria, Unterbrunnweg 3, Tel: +43/664-1048297, www.aqua-tech.eu

Drum Filter

Selection

| Series/Model | With Frame | | With Tank | |
|---------------------------------------|---|---|--|---|
| | without inlet pipe | with inlet pipe | in stainless-steel | in polyethylene |
| Series 40 Drum Ø 40 cm |  |  |  |  |
| Series 60 Drum Ø 60 cm |  |  |  |  |
| Series 80 Drum Ø 80 cm |  |  |  |  |
| Series 120 Drum Ø 120 cm |  |  |  |  |
| Series 160 Drum Ø 160 cm |  |  |  |  |
| Series 200 Drum Ø 200 cm |  | Only with frame without inlet pipe! | | |

EN



CE

Made in the European Union!

AquaTech

A-6370 Kitzbühel/Austria, Unterbrunnweg 3, Tel: +43/664-1048297, www.aqua-tech.eu

Drum Filter

Specifications

| Size | Small Drum Filters | | | Medium Drum Filters | | | | | | | |
|--------------------------|--------------------|-------|-------|---------------------|-------|--------|---------|-------|--------|---------|---------|
| Type | 1-40 | 2-60 | 4-60 | 2-80 | 4-80 | 6-80 | 8-80 | 3-120 | 6-120 | 9-120 | 12-120 |
| Drum diameter | 40 | 60 | 60 | 80 | 80 | 80 | 80 | 120 | 120 | 120 | 120 |
| Filter plates | 1 | 2 | 4 | 2 | 4 | 6 | 8 | 3 | 6 | 9 | 12 |
| Spray nozzles | 3 | 4 | 8 | 5 | 10 | 15 | 20 | 5 | 10 | 15 | 20 |
| Screen area | 0,25 | 0,50 | 1,00 | 0,86 | 1,72 | 2,58 | 3,44 | 1,29 | 2,58 | 3,87 | 5,16 |
| Motor power | 250 | 250 | | 250 | | | | 370 | | | |
| Turns/minute | 17 | 8 | | 5 | | | | 5 | | | |
| Sludge pipe | 110 | 110 | | 110 | | | | 110 | | | |
| Water depth [±] | 25-26 | 38-40 | | 47-50 | | | | 75-80 | | | |
| Filter capacity* | litre/second | | | | | | | | | | |
| ~20 µm | 3-4 | 6-8 | 12-16 | 11-13 | 22-26 | 33-39 | 44-52 | 15-18 | 30-39 | 45-57 | 60-75 |
| ~40 µm | 5-7 | 10-14 | 20-28 | 18-23 | 36-46 | 54-69 | 72-92 | 24-35 | 48-70 | 72-105 | 96-140 |
| ~60 µm | 7-10 | 15-20 | 30-40 | 25-34 | 50-68 | 75-102 | 100-136 | 33-51 | 66-102 | 99-153 | 132-204 |
| ~80 µm | 9-11 | 19-22 | 38-44 | 32-38 | 64-76 | 96-114 | 128-152 | 42-59 | 84-118 | 126-177 | 168-236 |

| Size | Large Drum Filters | | | | | | | | | | |
|--------------------------|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Type | 8-160 | 12-160 | 16-160 | 20-160 | 24-160 | 28-160 | 32-160 | 20-200 | 25-200 | 30-200 | 35-200 |
| Drum diameter | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 200 | 200 | 200 | 200 |
| Filter plates | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 20 | 25 | 30 | 35 |
| Spray nozzles | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 20 | 25 | 30 | 35 |
| Screen area | 3,44 | 5,16 | 6,88 | 8,60 | 10,32 | 12,04 | 13,76 | 8,80 | 11,00 | 13,20 | 15,40 |
| Motor power | 550 | | | | | | | 550 | | | |
| Turns/minute | 3 | | | | | | | 3 | | | |
| Sludge pipe | 125 | | | | | | | 140 | | | |
| Water depth [±] | 96-101 | | | | | | | 116-123 | | | |
| Filter capacity* | litre/second | | | | | | | | | | |
| ~20 µm | 44-50 | 66-75 | 88-100 | 110-125 | 132-150 | 154-175 | 176-200 | 114-128 | 142-160 | 171-192 | 199-224 |
| ~40 µm | 74-94 | 96-141 | 146-184 | 185-235 | 225-282 | 255-329 | 290-376 | 189-247 | 236-309 | 283-371 | 330-432 |
| ~60 µm | 100-140 | 150-210 | 200-280 | 250-350 | 300-420 | 350-480 | 400-560 | 260-358 | 325-447 | 390-536 | 455-626 |
| ~80 µm | 128-164 | 192-236 | 256-310 | 320-390 | 384-470 | 448-550 | 512-640 | 332-416 | 415-520 | 498-624 | 581-728 |

Drum diameter in cm, Filter area in square metre, Motor power in watts, Sludge pipe in mm.

[±]Water depth = Recommended water level in centimetre for filter with frame.

*Filter capacity = Litre per second at 25-10 mg/l of suspended solids.

The filter capacity should be approx. 1/3 larger than needed,
for African catfish we recommend even 2/3 larger.

Filter dimensions and weights, on request!

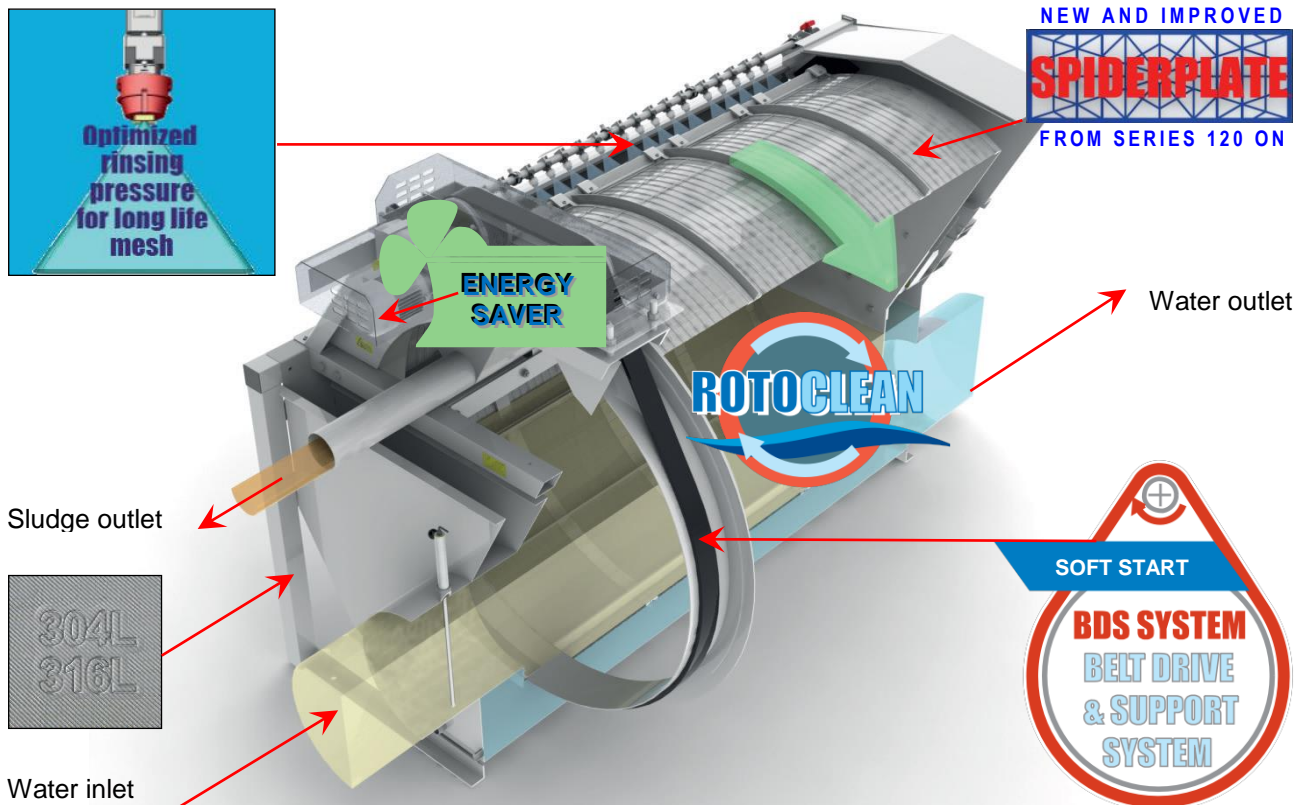
Best price for value!

AquaTech

A-6370 Kitzbühel/Austria, Unterbrunnweg 3, Tel: +43/664-1048297, www.aqua-tech.eu

Drum Filter

Function



Installation

Drum filters with tank can be placed freely on the ground. Here, the recommended (maximal) water flow in the inlet pipe should be considered (see table below). Drum filters with frame must be installed in a tank or channel made of concrete. Here, also the needed (optimal/maximal) water depth in the filter must be respected (see table above). For the adaption to the water depth, all drum filters can be placed on a pedestal-podium or in a sunk-shaft. All around the drum filters, a space of minimum 0,5 m in wide should be available as service area.

| Filter series | 40 | 60 | | | 80 | | 120 | | 160 | |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pipe connection ^Ø | 125 | 160 | 200 | 250 | 315 | 350 | 400 | 500 | 630 | 710 |
| Water flow ^x max. | 10 | 16 | 25 | 40 | 60 | 80 | 100 | 150 | 250 | 320 |

Pipe connection^Ø = Possible diameters in mm for models with installation tank or inlet pipe.

Water flow^x = Maximal flows in l/s at a current velocity of 0,8 m/s at the inlet.

Consulting:

AquaTech

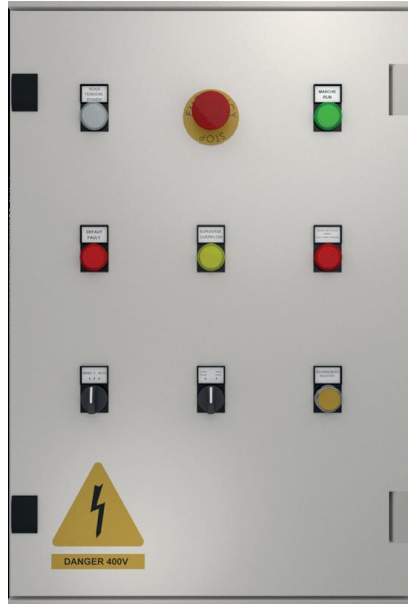
A-6370 Kitzbühel/Austria, Unterbrunnweg 3, Tel: +43/664-1048297, www.aqua-tech.eu

Drum Filter

Accessories



Cleaning-pump



Switch-box



Pipe-flanges



Level-radar or level-probe and switch-timer

Additional options on request!

Consulting:

AquaTech

A-6370 Kitzbühel/Austria, Unterbrunnweg 3, Tel: +43/664-1048297, www.aqua-tech.eu

Drum Filter

Cleaning Pumps

| Screen | 10-15 µm | | 20-25 µm | | 30-40 µm | | 60-80 µm | | 100-500 µm | |
|----------|----------|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|------------|-------------------|
| Pressure | 11 bar | | 10 bar | | 7 bar | | 5 bar | | 4 bar | |
| Type | kW | m ³ /h | kW | m ³ /h | kW | m ³ /h | kW | m ³ /h | kW | m ³ /h |
| 1-40 | 1,1 | 0,8 | 1,1 | 0,8 | 0,8 | 0,7 | 0,4 | 0,6 | 0,4 | 0,5 |
| 2-60 | 1,1 | 1,1 | 1,1 | 1,1 | 0,8 | 0,9 | 0,8 | 0,7 | 0,4 | 0,6 |
| 4-60 | 2,2 | 2,1 | 1,5 | 2,1 | 1,1 | 1,8 | 0,8 | 1,5 | 0,4 | 1,3 |
| 2-80 | 1,5 | 1,3 | 1,5 | 1,3 | 1,1 | 1,1 | 0,8 | 0,9 | 0,6 | 0,8 |
| 4-80 | 2,2 | 2,7 | 2,2 | 2,6 | 1,1 | 2,3 | 0,8 | 1,9 | 0,6 | 1,6 |
| 6-80 | 3,0 | 4,0 | 3,0 | 3,9 | 2,2 | 3,4 | 1,1 | 2,8 | 0,8 | 2,4 |
| 8-80 | 4,0 | 5,3 | 3,0 | 5,2 | 2,2 | 4,6 | 1,5 | 3,7 | 1,1 | 3,2 |
| 3-120 | 1,5 | 1,3 | 1,5 | 1,3 | 1,1 | 1,1 | 0,8 | 0,9 | 0,6 | 0,8 |
| 6-120 | 2,2 | 2,7 | 2,2 | 2,6 | 1,1 | 2,3 | 0,8 | 1,9 | 0,6 | 1,6 |
| 9-120 | 3,0 | 4,0 | 3,0 | 3,9 | 2,2 | 3,4 | 1,1 | 2,8 | 0,8 | 2,4 |
| 12-120 | 4,0 | 5,3 | 3,0 | 5,2 | 2,2 | 4,6 | 1,5 | 3,7 | 1,1 | 3,2 |
| 8-160 | 1,5 | 2,7 | 2,2 | 2,6 | 1,1 | 2,3 | 0,8 | 1,9 | 0,6 | 1,6 |
| 12-160 | 3,0 | 4,0 | 3,0 | 3,9 | 2,2 | 3,4 | 1,1 | 2,8 | 0,8 | 2,4 |
| 16-160 | 4,0 | 5,3 | 3,0 | 5,2 | 2,2 | 4,6 | 1,5 | 3,7 | 1,1 | 3,2 |
| 20-160 | 5,5 | 6,7 | 4,0 | 6,5 | 2,2 | 5,7 | 1,5 | 4,7 | 1,1 | 4,1 |
| 24-160 | 5,5 | 8,0 | 4,0 | 7,7 | 3,0 | 6,8 | 2,2 | 5,6 | 1,1 | 4,9 |
| 28-160 | 5,5 | 9,3 | 4,0 | 9,0 | 3,0 | 8,0 | 2,2 | 6,5 | 2,2 | 5,7 |
| 32-160 | 5,5 | 10,7 | 7,5 | 10,3 | 3,0 | 9,1 | 2,2 | 7,4 | 2,2 | 6,5 |
| 20-200 | 3,0 | ○ | 3,0 | 5,2 | 2,2 | 4,6 | 1,5 | 3,7 | 1,1 | 3,2 |
| 25-200 | 4,0 | ○ | 4,0 | ○ | 2,2 | ○ | 1,5 | ○ | 1,1 | ○ |
| 30-200 | 4,0 | ○ | 4,0 | ○ | 3,0 | ○ | 2,2 | ○ | 1,1 | ○ |
| 35-200 | 5,5 | ○ | 4,0 | ○ | 3,0 | ○ | 2,2 | ○ | 2,2 | ○ |
| 40-200 | 5,5 | ○ | 5,5 | ○ | 3,0 | ○ | 2,2 | ○ | 2,2 | ○ |

Specifications at 400 V (50 Hz) and endurance run.

Cleaning pumps up to 2,2 kW are also available in 230 V (50 Hz).

Water level sensors or switch-timers reduce energy and water demands.

Suction and pressure hose sets (each 2 m with 25-32 mm Ø) are available as accessories.

All cleaning pumps are available for fresh water (4301) or salt water (4404).

○ = on request!

If questions please contact:

AquaTech

A-6370 Kitzbühel/Austria, Unterbrunnweg 3, Tel: +43/664-1048297, www.aqua-tech.eu

Drum Filter



Type 4-80 with frame (above) and tank (below)



AquaTech