



# Alfa Laval Power Plates

## Reduce the power consumption of your decaners

### An easy way to save

Every time energy costs rise, so does the cost of operating your decaners. There is not much you can do about the rising cost of energy. But now, you can reduce the power consumption of your decaners with Power Plates.

Power Plates save money by reducing the power required to drive your Alfa Laval decaners. And since they use less energy, they also help save the environment. Best of all, Power Plates do all this without sacrificing performance.

### Benefits

The benefits of installing Power Plates include:

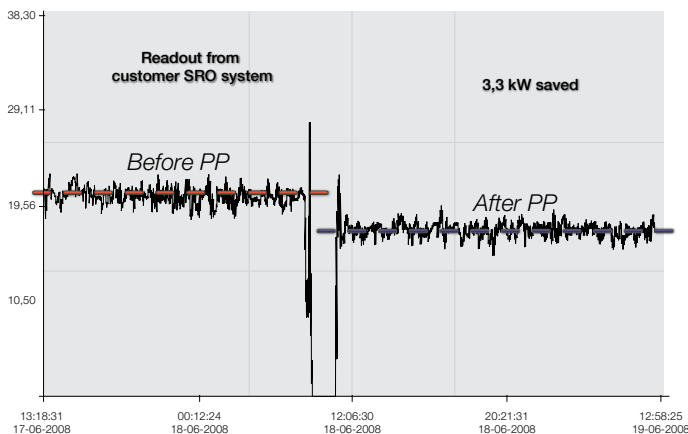
- Reduced energy consumption
- Reduced environmental impact
- Quick payback time

### Working principle

The basic function of Power Plates is to reclaim some of the energy from the liquid as it leaves the bowl.

When the liquid leaves the decanter, it is fully accelerated. Its rotation velocity moves in the direction of the bowl rotation. The Power Plate captures some of this discharge velocity and transfers it in the opposite direction of the bowl rotation.

### Power Plate Launch – Case Herning RA



An example of power consumption before and after installation of Power Plates.



Power Plates can be installed quickly and easily.

Therefore, the total effluent velocity is reduced. The energy content in the liquid that leaves the decanter is proportionate to the square of the velocity, so there is a considerable savings – even in even a small velocity reduction.

### Installation

Power Plates are easy to install. Installation can be done as part of your next scheduled service or any time you want.

### Plate dams

Because the plate dam radius affects the decanter's performance, we recommend – in addition to the plate recommended for the tool – that you also order one size smaller and one size larger for optimization purposes.

### Savings

By making the most of the energy you use, Power Plates generate significant savings. Your decanter's energy consumption will decrease 10% to 25%. The larger the decanter, the greater the savings. This may mean a payback time of 12 to 18 months – sometimes even less.

Range of Alfa Laval decanters Power Plates can be installed on:

Decanter Name	Part number
NX 438/439	61242673-10
NX 928/930/934/935/936/937	61242505-10
NX 5151/5152	61242507-10
NX 944/945/947	61242506-10
NX 6541/6542	61242508-10
NX 706/707	61242509-10
DS 706	61242510-10



Power Plates are saving the plant money round the clock.

## Case study #1

### **Saving energy day and night**

A wastewater treatment plant operating 24/7 is already realizing energy-saving benefits. They installed Power Plates on their NX 439 decanter processing 25 m<sup>3</sup>/hour. The decanter draws 10% less power from the main motor (down to 17.5 kWh from 20 kWh) and they are saving 25% on flow-dependent power. The plant now more efficiently serves its local community of 250,000 residents.



The plant's large decanter now draws 20% less power.

## Case study #2

### **Big savings for a big machine**

Another wastewater treatment plant is taking advantage of the savings of Power Plates. For eight hours a day, their NX 945 decanter processes 60 m<sup>3</sup>/hour. With Power Plates installed, the plant's energy consumption for the decanter dropped by 20%, from 58 kWh down to 46 kWh. Not only are they saving on energy costs, but they are building a reputation for being environmentally-aware as well – every kWh saved equals 0.5 kg less CO<sub>2</sub> emitted.

### **How to contact Alfa Laval**

Up-to-date Alfa Laval contact details for all countries are always available on our website at [www.alfalaval.com](http://www.alfalaval.com).