



**DIVIMAT D 140**

# **DIVIMAT**

**The high-revolution barrier type hygiene washer**

**for efficient and gentle linen care**

# Hygiene Professionals do their Laundry with STAHL

**STAHL**  
WÄSCHEREIMASCHINEN

The most important demands industrial washing machines have to meet are speed, thriftiness and cost effectiveness. In addition to this health and safety legislation stipulates that hospitals, care homes and similar institutions have to separate their laundry facility into a clean and contaminated side. This also applies to laundries that operate as service providers for these kinds of institutions. Priority is therefore given to a safe processing of linen that might be contaminated. At the same time laundries are expected to deliver high-quality linen care while operating reliably within efficiency parameters. We have listened to and valued these needs and requirements of our customers for more than 100 years. Since 1909 and for four generations we have made it our job to meet these demands. They have always been our motivation to continually work on the improvement and development of our machines and to manufacture them here in Sindelfingen.

This is how STAHL has become a label for quality products manufactured in Germany and sold throughout the world. The development of the new generation DIVIMAT high-performance washer extractors is another success story – in addition to being ideally suited for the care to today's textiles they are also well-prepared to deal with the fabrics of the future; easy to use, save to operate, gentle on the fabric and good for efficiency.



**Large doors and large  
sizes – the DIVIMAT D**



# DIVIMAT – The Hard-Wearing Barrier Washer Extractor



- **Maximal vibration absorption and quietness of operation through VibLess combination**
- **Space saving wall installation possible**
- **Extremely stable dual bearing in dry area of the machine**
- **Extra large Edelstahl stainless steel drain valve**
- **PTS 3 power-transmission-system helps save energy**
- **Optimal positioning of heating elements**
- **Fast and wear-free electric break system**
- **Inner and outer drum as well as detergent box made of Edelstahl stainless steel**
- **Casing made of Edelstahl stainless steel**
- **Complies with German occupational health and safety standards**
- **Made in Germany for over 100 years**

## **Free standing with air-suspension**

In the development of the DIVIMAT we paid particular attention to the aim of maximizing vibration absorption. This was achieved with our VibLess-System, a combination of strong springs, bellows cylinders and hard-wearing friction absorbers, making it possible to install the machine in a free standing position while ensuring a remarkably quiet operation in spite of the high g-factor. The dimensions and the materials chosen for the dual bearing of the drum in the DIVIMAT D exceed even the most exacting demands in regards to quality. We developed and produce the bearing and are proud to say that it could safely be described as a perfect combination of sturdiness and state-of-the-art engineering. It is STAHL quality at its best, guaranteeing extreme stability and a long service life.

## **PTS 3 – the 3rd generation PTS-drive**

The PTS 3 power transmission system developed by us does not require any maintenance and only uses as much energy as actually needed for the particular job at hand. It reduces, for example, power consumption during the spin cycle depending on the drying stage of the laundry. The PTS 3 with the pioneering efficiency motor lessens current peaks, detects and controls unbalances, ensures a quiet operation, infinitely variable wash and spin revolutions, a gentle starting of the drum as well as a fast and wear free breaking of the drum without any mechanical break components. There are no mechanical break elements, nor couplings and transmissions to worry about.

## **Space and money saving installation**

The possibility to execute all service and maintenance work at these barrier type washers either from the front or from the rear of the machine is truly innovative. This means that you can really save on space by installing the machine at a side wall. This advantage even multiplies by installing two or more machines in close proximity to each other, side by side. All installation connections can be guided to the machines from the top or the bottom.

## **Newly developed XL Edelstahl stainless steel drain valve**

Our newly developed Edelstahl stainless steel drain valve is extra large and of step geometrical design to prevent dirt deposits and the jamming of foreign objects. It is triggered by water or air and thus remains closed even in case of a power failure to prevent the loss of water and the need to restart the wash process. This is another example of STAHL's contribution to a smooth running of your operation.

## The right size and model for any space and requirement

We produce the DIVIMAT D, which is loaded from the front and unloaded from the rear, in the dry-load capacities of 14, 18, 22, 29, 35, 40, 60, 80, 120, 160 and 200 kg. In combination with the side loading DIVIMAT S we offer you a choice of 15 different sizes of these hygiene washer extractors. We can therefore safely say that we have the solution for any type of room situation. To extend this variety of the DIVIMAT range even further, we offer you a choice of various heating systems: electricity, steam, indirect steam, thermal oil or dual heating. Of course, we are always happy to accommodate special requirements – flexibility is, after all, our advantage. This is for example demonstrated by the fact that we also offer the DIVIMAT D as a single door industrial machine.

- **DIVIMAT D front loader available in 11 sizes**
- **Doors can alternatively be hinged on the right or left side**
- **DIVIMAT S side loader available in 4 sizes**
- **DIVIMAT S available with loading side on the left or on the right**
- **Choice of 5 heating systems: electric, steam, indirect steam, thermal oil or dual heating system**
- **DIVIMAT D also available as industrial machine with only one door**
- **Classy and elegant machine design**

The washer is loaded with dirty or contaminated linen from this side, commonly called the 'unclean side'.



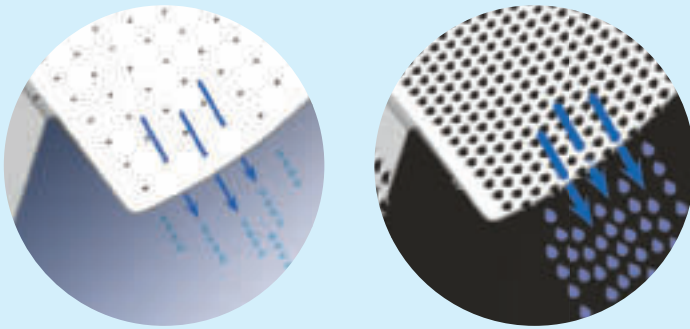
DIVIMAT D 140

DIVIMAT D 220

DIVIMAT D 400



**Gentle, safe and efficient: the Eco-Drum**



**Drum without conical perforations: STAHL Eco-Drum:**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>■ Slow draining</li> <li>■ Removal of lint is cumbersome</li> <li>■ Hard edges put strain on linen</li> </ul> | <ul style="list-style-type: none"> <li>■ Fast draining</li> <li>■ Gentle conical perforations with soft radiuses</li> </ul> |
|--|---|

- Linen saving conical perforation of the Eco-Drum
- Perforations efficient in number and size
- Perforated scoops for fast flooding of the wash load
- SPEED-FLOW-System (hydrodynamic water flooding)
- PULS pendulum overflow rinse process to save water
- SWI heat insulation to save energy
- Eco-Drum + SPEED-FLOW + PULS + SWI = perfect combination for efficiency
- Pullmann- or Y-partition into 2 or 3 compartments



**DIVIMAT D 600**



The 'clean side', where the clean linen is taken out of the machines through the large doors. The front-loader DIVIMAT D 220 on the left and the side-loader DIVIMAT S 220 with large unloading door and window on the right.

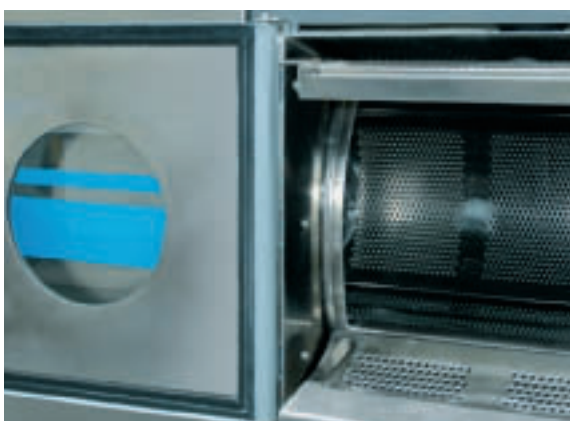
# The Strategy: Efficiency through Ergonomically Sound Design

Efficiency – our keyword for the DIVIMAT in terms of technology and operation. The large doors open by 180° to the side (on request, they can also be hinged to move up), giving access to the washing drum. The washing drum access is also large to ensure a fast and comfortable loading and unloading of the machine. The

catch of the drum door, while being of very sturdy design and safe, can be opened and closed easily with just one hand. The lower part of the door hatch serves as a support for sliding the load into or out of the machine. As soon as the wash process is finished the Eco-Drum stops exactly in line with the door opening and automatically locks into position so that the machine can be unloaded.



The spacious Eco-Drum is easy to use and safe



Doors open 180° to the side

- Large drum access for ergonomically sound loading and unloading
- Doors swing 180° to the side without any water dripping from above
- Drum access stops automatically at the door opening (automatic positioning)
- Standard automatic position lock of the drum in line with the door
- Eco-Drum can be opened single-handedly
- Sturdy and safe catch of drum door
- Lower door hatch serves as loading and unloading aid
- Electronic door lock with plausibility check
- Window for monitoring wash process
- Continuous program monitoring by FREEpro control unit with plain language display
- Doors can be hinged on the left or right



# FREEpro Control Unit – Wash Technology

## Now and in the Future

We were the first to install microprocessor control units in our washing machines and we have expanded on this lead. The third generation FREEpro in use today represents a continuation of this development with the aim to offer you the perfect solution for your needs rather than some arbitrary standardized answer. The FREEpro is extremely easy to operate and gives the user complete freedom of choice, as all adjustable parameters can be programmed individually and independently of each other e.g. wash and soak periods, wash and spin revolutions, temperatures, water levels, dosing types as well as wash and spin cycles.



### Simple, easy and flexible programming

- 13 basic programs included
- 99 spaces for free programming
- Dialogue based, simple programming
- Hygiene program according to public health recommendations e.g. (chemo-)thermal disinfection
- Wet cleaning of delicate textiles as for example residents' clothing and bedding
- Easy individual program selection
- Free and infinitely variable wash and disinfection parameters
- Machine and computer networks as well as online functions possible
- Exact reproduction of residual moisture level e.g. for moist duster covers

### Recording operating data, network capability and internet connection

Upon request, your DIVIMAT can be fitted with a high-tech connection, which will make it possible for you to gain relevant operating data. You can diagnose faults, send your data to higher-level systems or simply connected a printer. The service technician can extract even more detailed information on load types, operating hours etc.

STAHL machines can communicate with each other if they are connected via a network. This means that instead of programming every single machine individually you conveniently send the

programs from one machine to the other without needing any chip cards or buffer batteries to secure your programs. These advantages save you time and effort and increase your operating efficiency.

### The future is yours – with this state-of-the-art technology

- Control technology to satisfy any requirement
- Combination of powder and liquid detergents within one program
- Intelligent cold and warm water supply
- Connection to integrated or external water recuperation system
- Quantity control with level sensor
- Up-to-date imbalance prevention
- Easily adaptable for future wash processes and new textiles
- Controlled cool down to prevent creasing
- Combined PULS/Cool-Down/SPEED-FLOW/SWI technologies to save time, water and energy
- Trigger of external dosing pumps
- Trigger of external energy management and peak-load switch
- Modern sensor technology to comply with temperature curves
- Securing correct soaking periods and temperatures for disinfection processes
- Chemical treatment of rescue workers' protective clothing
- Dual heating system steam/electric

By connecting *FREEpro* to a PC and the Internet the control data can also be viewed by a technician, should the need arise. This makes it possible for us to remote diagnose any problems you might have or to offer help in regards to various questions on the wash process. If desired, we will remind you of maintenance and inspection intervals, which can also be partially performed via the Internet upon mutual agreement.

### Complete control at your finger tips – the third generation *FREEpro*

- User navigation in plain language
- Large selection of languages
- Constant process monitoring, e.g. for special disinfection programs
- Visual representation of the program process
- Possibility to retrieve extensive statistical information
- Fault diagnostic system with explanations
- Timer to operate machine at cheaper times
- Timer with week and week-end settings

### Ecological savings with liquid dosing system for detergents

Other factors to bear in mind when considering the investment in your new *DIVIMAT* machine are the follow-up costs. The liquid dosing system of wash detergents and auxiliaries offers you a number of advantages in this aspect. *FREEpro* communicates with all standard liquid dosing systems and triggers the feed of washing detergents at the right time and for the correct amount within gram range. The addition of auxiliaries like boosters, disinfectants, bleaching agents etc is also triggered automatically, eliminating the risk of accidental overdosing or miss-timing. All you have to do is set your desired quality level once and you will consistently and reliably achieve the same degree of cleanliness.

The *DIVIMAT* as well as the liquid dosing system are suited for all types of textiles. This goes for contamination prone linen, heavily soiled floor mats and mop heads as well as underwear and outer wear – all this is just a question of selecting the right program.

## Economy through Ecology

We believe that the protection of the environment starts with the ecological construction and production of the machines. Ecological development means first of all that we refrain from using non-recyclable materials and that we concentrate on choosing uniform materials wherever possible. One of the best examples is *Edelstahl* stainless steel which we use remarkably often in our components and which is particularly well suited for recycling into production. In order to simultaneously improve the ecological balance and the cost/benefit ratio for the customer we have made it our ultimate priority to maximize the machines' service life.

Our vertical production range ensures that we can easily control our quality level as well as avoid emissions due to transport. This also goes for our suppliers, who are preferably based close to our own plant in Baden-Württemberg. The construction engineers have always paid great attention to the minimization of our machines' energy, water and detergent consumption.

- **SWI - specially designed heat insulation keeps the heat inside the drum. This "thermo effect" saves approximately 30 % of heating energy.**
- **PULS – pendulum overflow rinse process reduces amount of rinse baths, detergents, wash times, wear and tear on linen and energy consumption.**
- **SPEED-FLOW – hydrodynamic water flooding reduces water and energy consumption.**
- **Marked additional savings in water consumption can be achieved by installing a water recuperation system.**
- ***DIVIMAT* is 100 % recyclable.**
- **Liquid dosing system for cost reducing and ecological operation can be fitted any time.**
- **The long service life of the machines benefits the environment.**



# DIVIMAT S Side-Loader – The Versatile Solution



**DIVIMAT S 140**  
Right-loaded

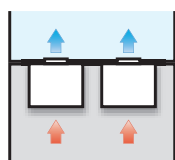
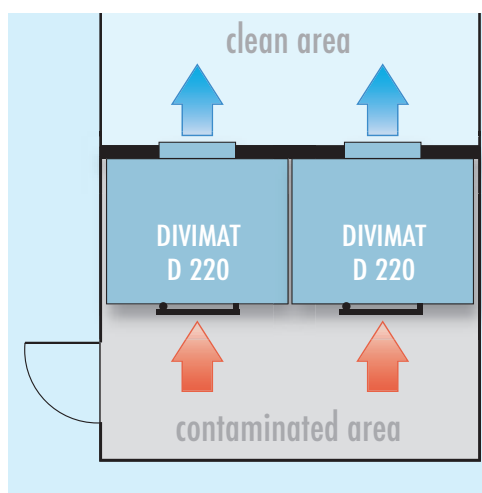
Our S-Models are very versatile in their application, since they can be loaded from the right or left depending on room requirements. This makes it possible to install these machines even in rather cramped conditions. The DIVIMAT S has been produced by us since 1983 and is now available in the third machine generation. Unloading of the machine via the DIVIMAT's large door with window is especially user friendly and ergonomically sound. The machines of the DIVIMAT range, just like all washers produced by us, are equipped with our FREEpro control unit. DIVIMAT S is available in the load capacities 14, 19, 22 and 35 kg and can also be fitted with our energy and water saving liquid dosing system.

- Door can alternatively be hinged on the right or left
- Unloading via the large door with window
- STAHL WashPerformance efficiency package
- Compact dimensions needing only a small amount of floor space

## Optimized Use of Space with DIVIMAT D and DIVIMAT S

### DIVIMAT D requires less space than other systems.

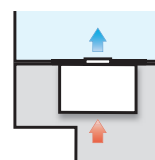
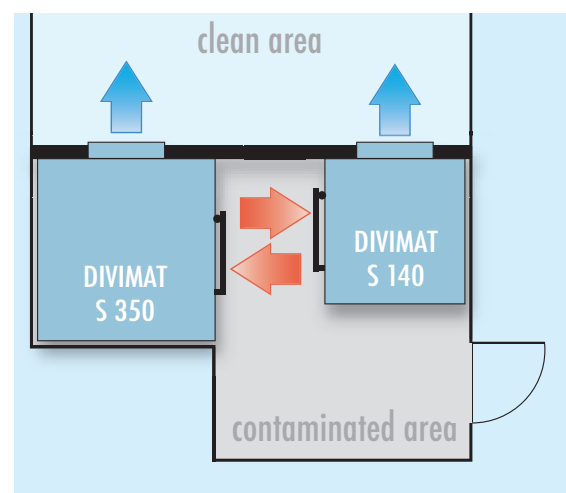
No access to the machine from the side required for servicing etc. This means that the machines can be positioned close to each other side by side and at a side wall. **This results in space savings of up to 30%.**



◀ This is how much space the usual systems require. You would need a much bigger room:

### DIVIMAT S – the most flexible solution.

This machine is loaded from the side (right or left) and can therefore also be installed in recesses and corners. Two DIVIMAT S in this room, for example, would deliver a wash load capacity of 49 to 57 kg.



◀ Other commonly available systems would only deliver a capacity of 20 to 30 kg

<b>DIVIMAT D Front Loader</b>		<b>140</b>	<b>180</b>	<b>220</b>	<b>290</b>	<b>400</b>	<b>350</b>	<b>600</b>	<b>800</b>	<b>1200</b>	<b>1600</b>	<b>2000</b>
Drum volume	l	140	187	220	290	400	350	600	800	1200	1600	2000
Door opening	mm	540 x 540	540 x 540	540 x 540	540 x 540	540 x 540	540 x 540	540 x 540	540 x 540	600 x 350	600 x 350	600 x 350
Load capacity (dry load)*	kg	14	18	22	29	40	35	60	80	120	160	200
Extraction speed variab. up to	rpm	1000	1000	1000	1000	1000	900	900	900	750	750	750
Number of scoop ribs		4	4	5	5	5	6	6	6	6	6	6
<b>Connected values</b>												
Electric heating	kw	12	18	18/24	24/36	36	36	36/54	72	120	160	200
Steam-HP/LP (4-6 bar)	kg/h (appr.)	12	18	18	24	36	36	60	80	120	160	200
<b>Space requirements</b>												
Width	mm	1130	1310	1200	1380	1560	1200	1560	1920	1650	2200	2650
Depth	mm	970	970	1180	1180	1180	1344	1344	1344	1800	1800	1800
Height	mm	1400	1400	1685	1685	1685	1715	1715	1715	2000	2000	2000
Minimum installation clearance	mm	790	790	900	900	900	1195	1195	1195	1650	1800	1800
Net weight	kg	600	650	770	870	960	1000	1200	1500	3500	4500	5500

All models are also available as industrial machines with only one door.

<b>DIVIMAT S Side Loader</b>		<b>140</b>	<b>190</b>	<b>220</b>	<b>350</b>
Drum volume	l	142	190	220	330
Door opening	mm	530 x 300	530 x 300	530 x 300	530 x 350
Load capacity (dry load)*	kg	14	19	22	35
Extraction speed variab. up to	rpm	1000	1000	1000	900
<b>Connected values</b>					
Electric heating	kw	12	18	18	36
Steam-HP/LP (4-6 bar)	kg/h (appr.)	9	18	18	45
<b>Space requirements</b>					
Width	mm	825	1010	1010	1180
Depth	mm	950	1030	1030	1200
Height	mm	1300	1370	1370	1620
Minimum installation clearance	mm	740	870	870	1180
Net weight	kg	370	430	450	980

\* Depending on load ratio

## Our Advantage – The Complete Range for any Requirement

- **ATOLL and WS – washer-extractors for ecological, intensive wash-technology**
- **DIVIMAT D and DIVIMAT S – hygienic washer-extractors for the disinfection of linen from nursing homes and hospitals**
- **HYDRO-EXTRACTORS – robust hydro extractors for professional use**
- **DRYING TUMBLERS – industrial heavy-duty automatic dryers**
- **FLATWORK IRONERS – compact high performance specialists for the professional top-finish**
- **DOMESTIC and STAR-FOLD – folding machines for precise and quick processing**
- **KOMBI-FOLD – the machine for fast sorting, folding and stacking of dry linen and towels**

