



# **BASIC LINE**

Innovative machine solutions and constructions in highly modular design, combined with cutting-edge control, drive, measurement, and automation technology are the unique selling points of every series manufactured by FLP Microfinishing GmbH.

The series BASIC LINE FLP 380, 600 and 700 is ideally suited for usage in laboratories, in tool making or for processing single items or small-scale series.

The machines possess basic functions for maintaining tool flatness and a simple timer-equipped control system for steady machining cycles.



BASIC LINE FLP 380





BASIC LINE FLP 600

Machines can be upgraded with additional modular components when unusual workpiece contours and challenging production tasks call for individual solutions.

Simply structured machine designs ensure calculable procedures for processing single items or small-scale series. When required surface pressure can be enhanced by hand weights or a pneumatic pressure device. Decades of experience in machine development and manufacturing have led to a broad range of available tools that has been fully employed for the BASIC LINE series.

### SINGLE PRECISION

The FLP SINGLE PRECISION FLP series 400, 600 and 700 are ideally suited for a wide range of applications, from the processing of single items to medium-scale series in the highest quality and precision. The machines are highly reliable and even for small-scale series ensure maximum cost-efficiency and a long-term return on your investment.

The SINGLE PRECISION series boasts an intelligent control concept as well as a great variety of optional components that are complementary and mutually integrable – thus ensuring reproducibility of machining processes.



SINGLE PRECISION FLP 400





| Single Disc<br>Series        | SINGLE PRECISION |            |             |             |               |              |              |              |
|------------------------------|------------------|------------|-------------|-------------|---------------|--------------|--------------|--------------|
| Working disc outer diameter  | mm               | 400        | 610 / 700   | 914 / 1000  | 1200 / 1500   | 1800 / 2200  | 2700 / 2900  | 3300 / 3500  |
| Dressing ring inner diameter | mm               | 145        | 248         | 368         | 430 / 600     | 690 / 900    | 1020 / 1120  | 1150 / 1300  |
| Working stations             | pieces           | 3          | 3 / 4       | 3 / 4       | 3 / 4         | 3 / 4        | 4            | 3            |
| Drive power                  | kW               | 0,75 / 1,5 | 2,2 / 4     | 4 / 7,5     | 7,5 / 11 / 15 | 15 / 22 / 30 | 15 / 22 / 30 | 15 / 22 / 30 |
| PLC / TFT display            |                  | Siemens    | Siemens     | Siemens     | Siemens       | Siemens      | Siemens      | Siemens      |
| Pneumatic / station          | daN              | 30 - 120   | 30 - 180    | 50 - 280    | 50 - 690      | 50 - 760     | 80 - 900     | 100 - 1000   |
| Rotational speed             | rpm              | 0 - 120    | 0 - 100     | 0 - 80      | 0 - 60        | 0 - 50       | 0 - 30       | 0 - 20       |
| Slurry tank                  | 1                | 5          | 13          | 15          | 30            | 50           | 300          | 600          |
| Cooling system               |                  | -          | Х           | Х           | Х             | Х            | Х            | Х            |
| Length x Width               | mm               | 910 x 840  | 1450 x 1100 | 1730 x 1350 | 2180 x 1700   | 3415 x 2400  | 3722 x 3500  | 4950 x 4950  |
| Height without pneumatic     | mm               | 1400       | 1600        | 1720        | 1940          | 1970         | 2330         | 2330         |
| Height with pneumatic        | mm               | 1900       | 1980        | 1980        | 2300          | 2730         | 2750         | 4350         |
| Weight without pneumatic     | kg               | 220        | 770         | 1350        | 2800          | 6050         | 28600        | 37500        |
| Weight with pneumatic        | kg               | 250        | 820         | 1500        | 3070          | 6500         | 31500        | 38000        |
| Handling systems             |                  | -          | Х           | Х           | Х             | Х            | -            | -            |

### SINGLE PRECISION

The integrated design of the SINGLE PRECISION FLP series 900, 1000, 1200, 1500 features a high level of performance, stability, and running smoothness, paired with high productivity and ease of handling. Ergonomics and refined process movements are as much at the root of the high machining quality as the high rigidity and the fully FEM-optimized machine concepts.



SINGLE PRECISION FLP 900 / 1000





High-precision bearings and a solid construction with integrated tool cooling are practically predestined for handling large quantities and multi-shift batch production with high stock removal rates, even for medium-size and large workpieces.

As a one-stop system provider offering not only unique technological support for your solutions, but also maintenance and service packages, we aim to emphasize our efforts towards innovation and perfection.

# **HIGH PRECISION**



HIGH PRECISION FLP 540 / 660 / 720

| Double Disc Machine<br>Series   | HIGH PRECISION |                 |                |                |  |  |  |
|---------------------------------|----------------|-----------------|----------------|----------------|--|--|--|
| Working disc outer diameter A Ø | mm             | 540 / 660 / 720 | 830 / 940      | 1100 / 1300    |  |  |  |
| Carrier wheel I Ø               | mm             | 180 / 225 / 225 | 300 / 300      | 400 / 480      |  |  |  |
| Carrier wheel                   | pieces         | 5/5/6           | 5 / 6          | 5 / 5          |  |  |  |
| Driving power top               | kW             | 5 / 12 / 23     | 12 / 23 / 38,5 | 12 / 23 / 38,5 |  |  |  |
| Driving power bottom            | kW             | 5 / 12 / 23     | 12 / 23 / 38,5 | 12 / 23 / 38,5 |  |  |  |
| Driving power rotor             | kW             | 3 / 5 / 11      | 5 / 11 / 15    | 5 / 11 / 15    |  |  |  |
| PLC / TFT display               |                | Siemens         | Siemens        | Siemens        |  |  |  |
| Operating pressure              | daN            | 2000            | 4000           | 4000           |  |  |  |
| Rotational speed top            | rpm            | 1100            | 800            | 600            |  |  |  |
| Rotational speed bottom         | rpm            | 1100            | 800            | 600            |  |  |  |
| Rotational speed rotor          | rpm            | 680             | 500            | 380            |  |  |  |
| Disconnection accuracy          | μm             | 0,1             | 0,1            | 0,1            |  |  |  |
| Automation                      | option         | Х               | Х              | Х              |  |  |  |
| Length x Width                  | mm             | 1980 x 1590     | 3500 x 2100    | 3500 x 2600    |  |  |  |
| Height approx.                  | mm             | 2600            | 2900           | 2900           |  |  |  |
| Weight approx.                  | kg             | 7000            | 12800          | 15800          |  |  |  |



Our philosophy, to challenge existing know-how in order to provide top quality high-precision machining results to our customers through innovation - is at the foundation of our double disc machine series HIGH PRECISION FLP 540, 660 and 720.

The unprecedented machine tool series with the highly cushioned Granit chassis is the driving force behind maximization of precision in all areas of microfinishing.



The HIGH PRECISION FLP series 830, 940, 1100 and 1300 features exceptional performance, stability, and running smoothness, paired with cutting-edge control, drive and measurement technology in connection with the integrated design of the machine series.

# **AUTOMATION SOLUTIONS**

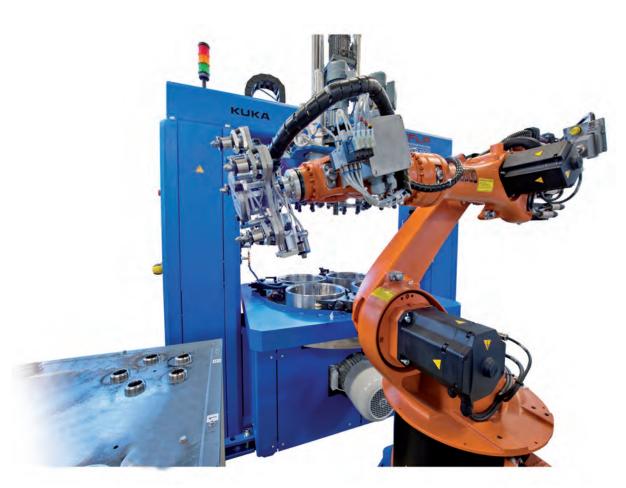


SINGLE PRECISION FLP 600 with automation

Customer-specific solutions for small-scale production and synchronising systems to optimize handling enable multiple machine operation and short retooling times on the basis of state-of-the-art control technique and drive technology.

By using special tools, it is often possible to combine process steps without suffering a loss of quality.





SINGLE PRECISION FLP 1000 with automation

Standard designs with component-specific modifications provide the basis for individual automated solutions and robot-supported systems. The machine design combines a wide range of applications that are easily automated, energy efficiency, intuitive operation, and other features - such as process-data-recording systems, error analysis programs, and much more.

# SPECIALIST MACHINERY



Because of their variable tool dimensions machines of this size offer a great variety of solutions from working large single items up to processing big quantities of high precision parts in every workstation.

The precision drives with torque constants and broad speed ranges are vibration and temperature isolated as standard.



Special machines with function-defining design aspects based on the singular construction with integrated control column and energy-optimized control and drive concept allow a new finishing quality with high-performance and thermally stable tool concepts, also for large-scale machines. Specially designed feeding and dosing systems for the lapping abrasive allow the medium to be supplied in technically pre-defined quantities and, equally crucial, non-clogging operation of the system.



### **CUSTOMIZED MACHINES**



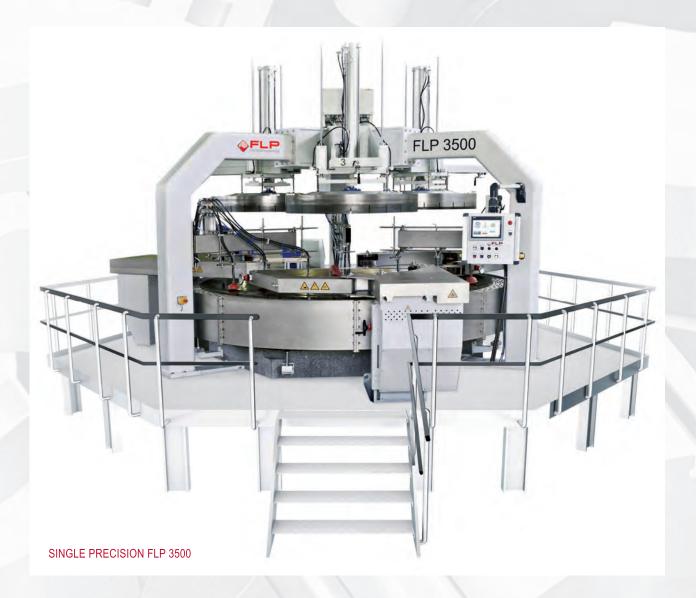
In the pursuit of perfecting the process solution in terms of surface finish, parallelism, flatness, and dimensional precision, it often happens that customized solutions spring forth from our innovations, many of which later will be developed into serial components.

Combinations with upstream and downstream systems - such as brushing machines and washing systems - create complete production islands, which can be delivered as a whole at the customer's request.

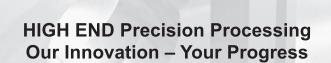


Machines of this type are always unique solutions for processing special items or applications. Machining tasks are developed together with the customer and are customized according to the processing results aimed at.

Whereas the resulting machines are always based on existing structural elements that are also used for our proven machine series, tools and work-holding devices are often tailor-made constructions that have been jointly developed with the customer.







FLP Microfinishing GmbH Made in Germany

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