Chemical solution preparation units

KOMPAKT



30 YEARS
AQUAFLOT
PROFESSIONAL SOLUTIONS

Basic characteristic

KOMPAKT is a family of preparation units intended for the continuous preparation of chemical solutions.

Preparation unit types distinguished by capacity:

- Single-chamber system
- Double-chamber system
- Triple-chamber system
- Big-bag
- Silo

Preparation unit types distinguished by design:

- K - preparation from powder/liquid
- E - preparation from powder/liquid, economic version
- ZD - direct powder dosing

Type series of KOMPAKT preparation units:

KOMPAKT, “K” type series

• 150-1, 300-1, 500-1	Single-chamber
• 150-2, 300-2, 500-2	Double-chamber
• 1000, 2000, 4000 8000 12000	Triple-chamber
• 150-1-2	Big-bag system
• 150-1-3	Silo system
• 150-1-4	Pallet system

KOMPAKT, “E” type series

• 70, 150, 300, 500, 700	Single-chamber
• 70f, 150f, 300f, 500f, 700f	Single-chamber
• 70f-2, 150f-2, 300f-2 500f-2, 700f-2	Double-chamber
• 70f-3, 150f-3, 300f-3 500f-3, 700f-3	Triple-chamber

KOMPAKT type series "ZD"

• 39NTL, 52NTL	Screw dosing device Push type
• 39NTZ, 52NTZ	Screw dosing device Pull type
• 39NR,52NR	Screw dosing device with a disintegrator
• 52F	Screw dosing device with air filtering

Uses in the preparation of solutions:

- Polymeric flocculants
- Coagulants
- Milk of lime
- Bentonite
- Urea
- Pulverised activated carbon
- Aluminium sulphate
- Sodium chloride (NaCl)
- Sodium sulphide (Na2S) ...

Form of the concentrate used:

- Powder
- Liquid



KOMPAKT A BC-D-E

A - type series

- K - preparation from powder/liquid
- E - preparation from powder/liquid, economic version
- ZD - preparation from powder/liquid, economic version

B - nominal output in l/h for the “K” and “E” type series
- screw diameter in mm for the “ZD” series

C - device specification detail

- f - device specification detail
- N - with a hopper
- NR - with a hopper and a disintegrator
- F - with air filtering
- TL - push type
- TZ - pull type

D - **pull type**

E - **version**

- 1 – Hopper system
- 2 – Hopper system
- 3 – Silo system
- 4 – Pallet system

Example:

KOMPAKT K 150-1-1

KOMPAKT preparation unit of the “K” type series with a nominal output of 150 l/h; single-chamber system with a hopper.

Example:

KOMPAKT E 300f-2-1

KOMPAKT preparation unit of the “E” type series with a nominal output of 300 l/h for the preparation of flocculants; double-chamber system with a hopper

Example:

KOMPAKT ZD 52NTL

KOMPAKT screw dosing device of the “ZD” type series with the screw diameter of 52 mm; push system with a hopper

Basic parameters

Designation	Nominal power (l/h)	Range (l/h)	Volume of tanks (l)	Volumetric performance (l/h)	Incoming power N (W)	Water connection DN (mm)	Hopper volume (l)
Type series "E"							
E 70	70	50-200	205	38	340	15	20
E 70f	70	50-200	205	13	340	15	20
E 70f-2	70	50-200	358	13	590	15	20
E 150	150	70-600	400	38	640	15	40
E 150f	150	70-600	400	13	640	15	40
E 150f-2	150	100-800	630	13	1190	15	40
E 150fe-2	150	100-800	630	13	1440	15	40
				100		15	40
E 300	300	200-900	604	38	840	25	40
E 300f	300	200-900	604	13	840	25	40
E 300fe	300	200-900	604	13	1090	25	40
E 300f-2	300	200-1500	1064	13	1590	25	40
E 300fe-2	300	200-1500	1064	13	1840	25	40
				100		25	40
E 500	500	300-2000	900	38	1190	25	40
E 500f	500	300-1300	900	13	1190	25	40
E 500f-2	500	300-2000	1570	13	1190	25	40
E 500fe-2	500	300-2000	1570	13	2540	25	40
				100		25	40
E 700	700	1000-7000	1200	84	670	32	40
E 700f	700	1000-5000	1200	38	1190	32	40
E 700f-2	700	1000-5000	2100	38	2290	32	40

Designation	Nominal power (l/h)	Range (l/h)	Volume of tanks (l)	Volumetric performance (l/h)	Incoming power N (W)	Water connection DN (mm)	Hopper volume (l)
E 700f-3	700	1000-5000	3000	38	3390	32	40
E 700fe-3	700	1000-5000	3000	38	3640	32	40
				100		32	40
Type series "K"							
K 150-1-1	150	500-1500	490	84	670	25	92
K 150f-1-1	150	200-500	490	9	670	25	92
K 300-1-1	300	300-2000	1110	335	670	25	92
K 300f-1-1	300	300-800	690	9	670	25	92
K 300f-2-1	300	300-1000	1160	9	670	25	92
K 500-1-1	500	300-2000	900	335	870	25	92
K 500f-1-1	500	300-1100	900	9	870	25	92
K 500f-2-1	500	300-1300	1570	9	870	25	92
K 1000	1000	500-1200	1170	9	2370	25	92
K 2000	2000	1000-2500	2600	9	3420	25	92
K 4000	4000	2400-5000	3640	28	3420	32	92
K 8000	8000	5000-9500	5940	28	4620	40	92
K 12000	12000	8000-14000	8440	28	6720	50	92
Type series "ZD"							
ZD 12N	1,9	-	-	1,91	90	-	0,7
ZD 25N	39	-	-	39,72	90	-	28
ZD 39N	83	-	-	83,29	180	-	140
ZD 52N	260	-	-	264,24	210	-	210
ZD 52F	260	-	-	264,24	1680	-	900

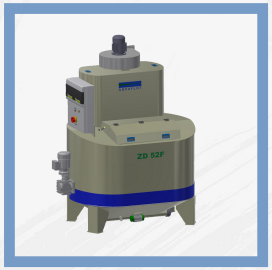












KOMPAKT - type series "K"

The SIEMENS S7 1200 series control system coordinates the work of all parts of the control unit and ensures:

- Intuitive control via the SIEMENS KTP400 touch panel
- Precise calibration of the performance of the screw dispenser of reagents
- High accuracy of chemicals development
- Continuous level measurement (precise analog measurement)
- Autonomous device functionality without a superior system
- The possibility of setting the level of mixing and the concentration of chemicals
- Remote control and management of the device over a LAN network
- The possibility of communication with the MASTER device via the PROFINET protocol (Siemens)
- SMART64Client - visualization and control of the device via LAN/WIFI network (PC, tablet, mobile)
- The possibility of communication with devices of other manufacturers via DI/DO signals
- Data collection and archiving (alarms, engine hours, measurements,...).



Single-chamber system



Double-chamber system



Triple-chamber system



Pallet system

KOMPAKT - type series "K"



Silo system



Big-bag system

KOMPAKT - type series "E"

Preparation units of "E" type series are intended for the continuous dust-free preparation of chemical solutions from concentrates in a powder form.
The concentrate is stored in a hopper. The screw dosing device of the hopper doses the concentrated to the melting chamber of the preparation unit. The concentrate dose is controlled by a PLC unit so as to obtain the set required concentration. The powder concentrate is mixed with the necessary amount of water in the dissolution tank to form a suspension of the required concentration.

The system displays the flow rate, total consumption, running time and other useful operating data.
The operator is able to change the concentration of the solution directly by changing the concentration percentage setting through the keypad of the control unit. All adjustments of the solution preparation system are made automatically.
A level sensor is installed in the tank: it measures the level of the liquid and starts the plant at the minimum operating level and stops the plant at the maximum operating level.

Component parts of the KOMPAKT E unit:

- Single-chamber mixing tank
- Daily hopper
- Dosing device drive (screw)
- Dispersing device
- Hydraulic diluting water distribution system
- Control panel with the LOGO control system

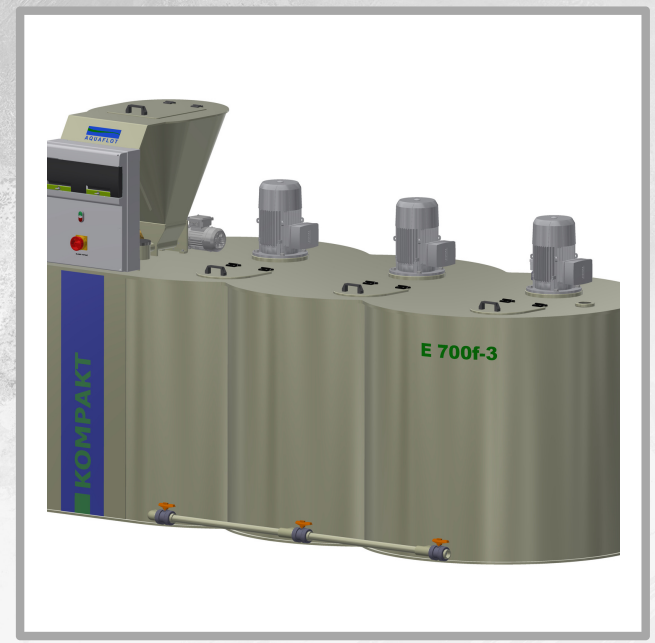
Additional equipment:
Dosing panel – the point for fitting a dosing pump for the prepared suspension



Single-chamber system



Double-chamber system

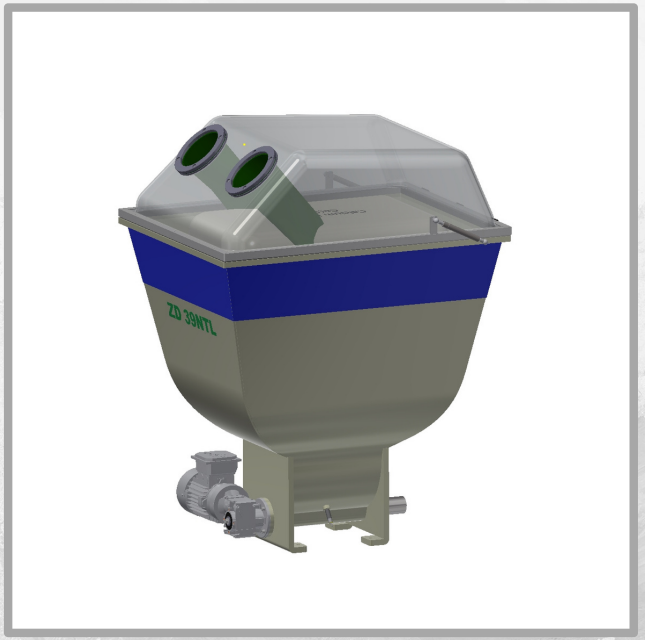


Triple-chamber system

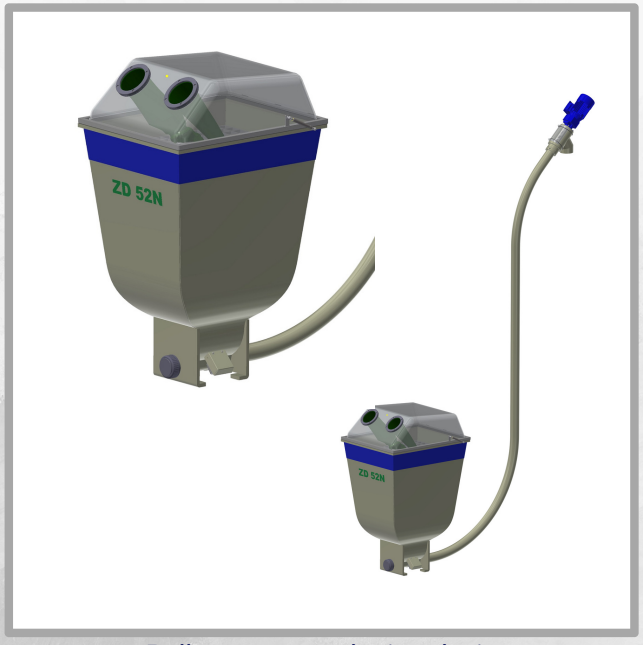
KOMPAKT - type series "ZD"

The dosing device provides:

- Direct dosing of the powder reagent into the process (reactor, tank...)
- Volumetric operation control
- Dust elimination, which is ensured for all versions, either by an enclosed design or by exhaustion with air filtering
- Safe handling during filling and draining
- Arching protection by mechanical hammering
- Push/pull screw versions
- Disintegrator (mechanical disintegration) version
- High chemical resistance of all components (PP, PTFE, ASI304)
- Possibility of independent control with PLC and visualisation



Push-type screw dosing device



Pull-type screw dosing device



Screw dosing device with a disintegrator



Screw dosing device with air filtering

KOMPAKT - Single-chamber system







KOMPAKT - Single-chamber system





KOMPAKT - Double-chamber system







KOMPAKT - Triple-chamber system









KOMPAKT - Pallet system





KOMPAKT - Pallet system





KOMPAKT - Silo system





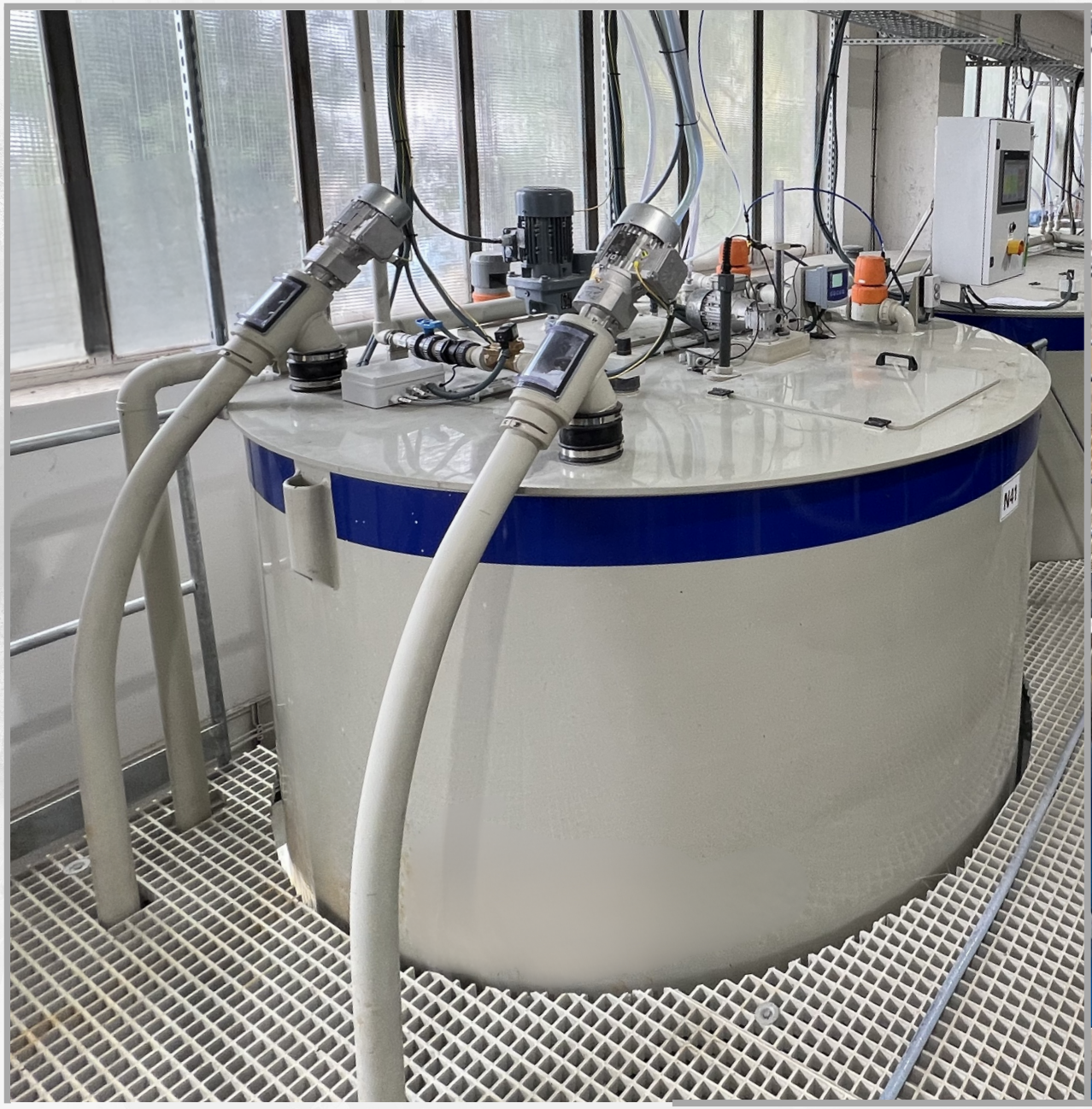
KOMPAKT - Big-bag system







KOMPAKT - “ZD” type series





System with a hopper

KOMPAKT - Type series "ZD"

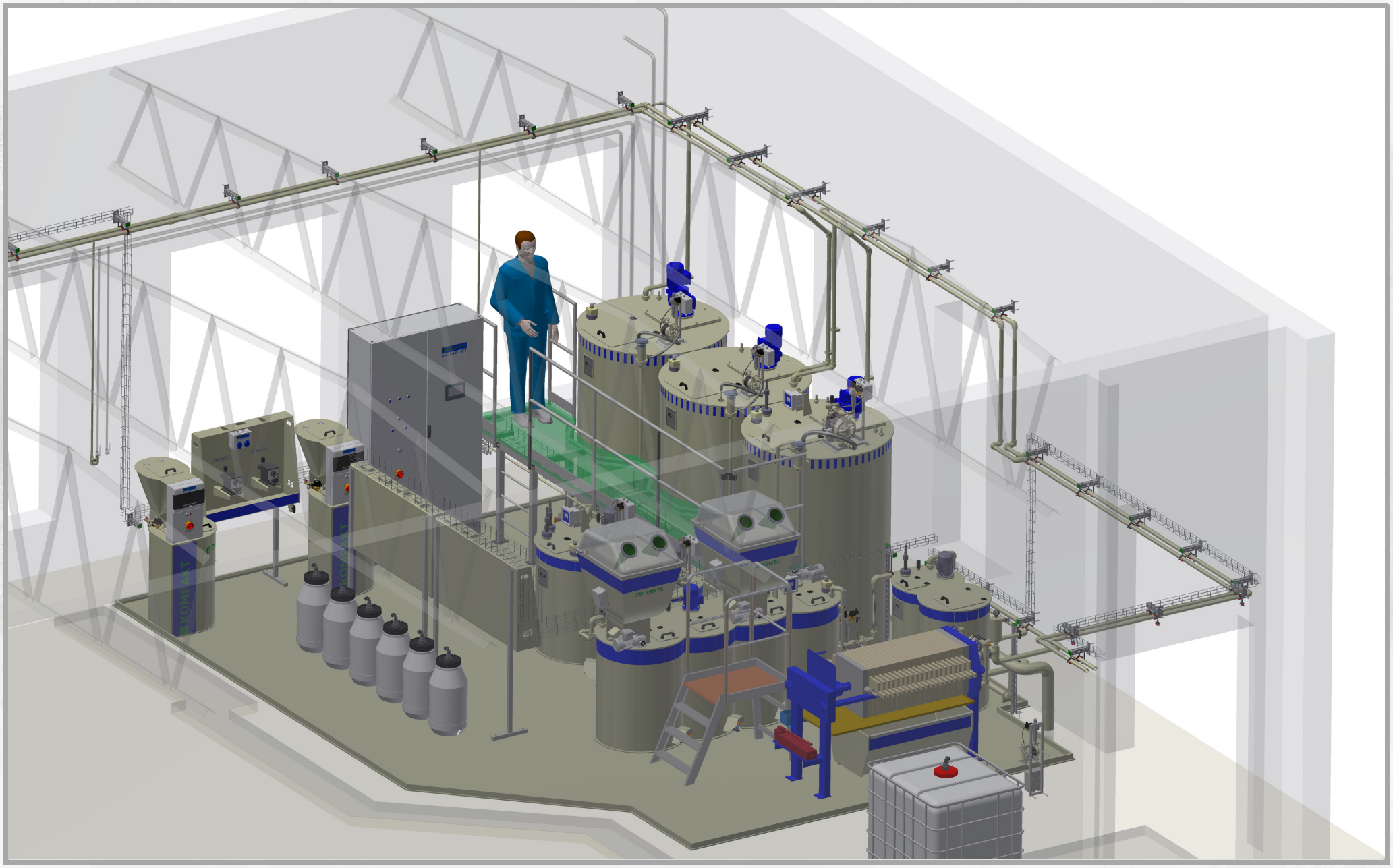
The hopper with sleeves allows an easy dosing of powder reagents while reducing dustiness in the workplace environment during the dosing.







Preparation units



Preparation units



Preparation units



















Why choose KOMPAKT?

- A compact device
- The hopper - the dispenser - the control panel form a single unit.
- Hoppers fitted with an enclosure or exhaustion.
- High level of craftsmanship.
- Proprietary product, including the design.
- Intuitive setting adjustment, process visualisation.
- LAN communication with the superior control system.
- Increased safety of reagent handling.
- The plant does not require the constant presence of an operator.

INFO : +421 905 381 050

AQUAFLOT spol. s r.o., Sikárska 8, 949 05 Nitra,
technologie@aquaflot.sk,
www.aquaflot.sk