

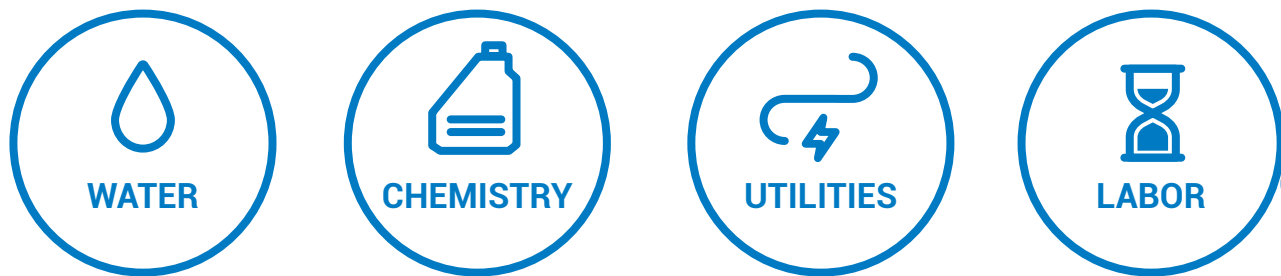
Hybrid Order Guide

Engineered to Run



HYBRID PROGRAM - WHAT IS IT?

A program designed to improve cleaning results & plant productivity, while optimizing:



HYBRID PROGRAM - EQUIPMENT OVERVIEW

The Hybrid Program is divided into three categories, each employing the FOAM cleaning technology.



Daily cleaning and disinfection of all open surfaces in the F&B production facilities.



Mobile cleaning stations for daily cleaning and disinfection of all open surfaces.



Fully automated and uniform cleaning and disinfection designed on a PC.

EQUIPMENT FOR OPEN PLANT CLEANING

Bundled Complete Kits for Open Plant Cleaning

Low Pressure Drop Station Kit - EXP20695

Model	Item no.	8-digit
Hybrid SD21/22 wall mounted satellite drop station (2 products)		53004338
Install kit for drop station		50001784
Low Pressure Hybrid Accessory kit with Twin Nozzle		50001789
Hybrid Automatic Hose reel, SS		50001793
Hybrid Hose Flex 1/2 X 8.2 FT		50001790

Boosted Pressure Drop Station Kit - EXP20696

Model	Item no.	8-digit
Hybrid SD21/22 wall mounted satellite drop station (2 products)		53004338
Install kit for Hybrid Satellite / drop station		50001784
Hybrid Accessory kit with nozzle kit, 82' hose		50001785
Hybrid Automatic Hose reel, SS		50001793
Hybrid Hose Flex 1/2 X 8.2 FT		50001790

Boosted Pressure Mobile Typhoon Kit - EXP20693

Model	Item no.	8-digit
Hybrid Typhoon Boosted Pressure Mobile unit		53004333
Hybrid Accessory kit with nozzle kit, 82' hose		50001785
Hybrid Typhoon Purflex Hose, 3/4 Inch x 32 Feet		50001791
Quick coupling for inlet hose, 3/4" brase nickel plated		85783835

Boosted Pressure Wall Mounted Mainstation Kit - EXP20694

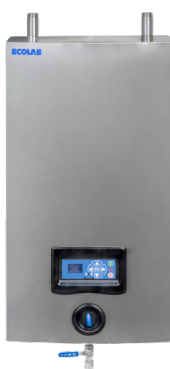
Model	Item no.	8-digit
Hybrid Mainstation MH42		53004334
Install kit for Hybrid Mainstation		50002358
Hybrid Accessory kit with nozzle kit, 82' hose		50001785
Hybrid Automatic Hose reel, SS		50001793
Hybrid Hose Flex 1/2 X 8.2 FT		50001790

MAINSTATIONS

Equipment with a water pump supplying pressurized water to drop stations.

Mainstation can also be used to clean right from the mainstation itself.

Mainstation = Booster (water pump) + Drop station



Models available:

MU421 – Max. 4 simultaneous users, 2 chemicals

Model	Item no.	8-digit
MH42	110003355	53004334

BOOSTERS

Equipment with water pumps supplying pressurized water to drop lines.

Booster = water pump



Models available:

Booster size indicates amount of **simultaneous users**.

Model	Item no.	8-digit
BF4	110001044	
BF8	110001045	
BF16	110001640	
BF24	110001641	
BF32	110001642	
BF40	110001643	
BF48	110001644	

DROP STATIONS

Drop stations are connected to Mainstations and Boosters.

Available with ABS or Stainless Steel cover

Drop station = cleaning station for one user



Models available:

First number indicates number of chemicals

Stainless steel cover:

Model	Item no.	8-digit
SU32	110003343	53004340
SD21SST	110003941	53004338
ECO SE11	110007117	

Explanation of available Drop station models:

SU 32 - Stainless steel cover, 3 chemicals, Hybrid version

SD21 SST - Stainless steel cover, 2 chemicals, Hybrid compact version (possible to upgrade with additional features, but the extra components are mounted outside of the unit on the wall)

ECO SE11 - Stainless steel cover, 1 chemical product

WHERE TO START? WHAT EQUIPMENT?

If a customer needs cleaning equipment, start by selecting between a Mainstation or a Booster.

These units include pumps that pressurize water up to 362 psi, and distribute to drop stations.

Factors to consider when choosing between a Mainstation and Booster:

Factor	Mainstation	Booster floor
Mounting method & place	Wall mounted inside production facilities	Floor mounted in a central room
Design	Closed design	Open design
No. of simultaneous users	Max 4 simultaneous users	7 versions available: From 4 up to 48 simultaneous users.
Sufficient water supply and pressure at the customer Gpm@ 30psi	MH42: 32 gpm/30psi	BF4: 32gmp/30psi BF8: 65 gpm/30psi BF16: 135 gpm/30psi BF24: 200 gpm/30psi BF32: 265 gpm/30psi BF40: 330 gpm/30psi BF48: 400 gpm/30psi
Piping available at the customer	The cheapest option is to utilize existing piping and just connect a booster, but often existing piping can usually only handle up to 200 psi. When that is the case, the cheapest option is to go with a mainstation (s) and drop stations, because it will be connected to water supply in the production area and branch out with new piping from mainstation (s) to drop stations.	

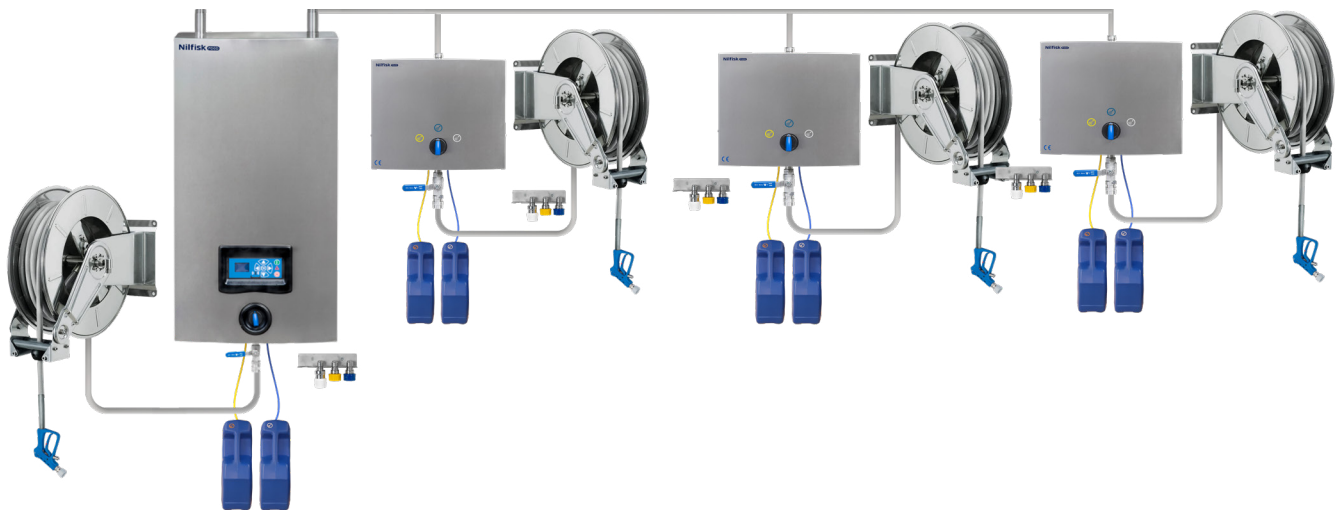
WHAT SIZE TO SELECT?

Equipment size depends on how many users clean **simultaneously** at the customer.

Mainstation MH42 supplies pressurized water to max. 4 users that can clean simultaneously. Each user needs a drop station to clean with.

Remember:

Mainstation functions as drop station itself, because it has a built in block, so you save one drop station on the installation - See picture 1.



Picture 1 - Mainstation Installation for 4 simultaneous users.

One Booster supplies pressurized water up to 48 simultaneously cleaning people.

The number of the Booster (4, 8, 16, 24, 32, 40, 48) indicates the max. number of users that can clean simultaneously.

If a customer have **between 2 to 4 users working simultaneously**, choose the following equipment: - Mainstation, OR

- Booster Floor BF4,

Both of the mentioned units supply pressurized water to up to 4 drop stations (simultaneous users).

If there are **more than 4** users cleaning simultaneously, you can either order Multiple Mainstations, bigger size of a booster or multiplied smaller booster sizes.

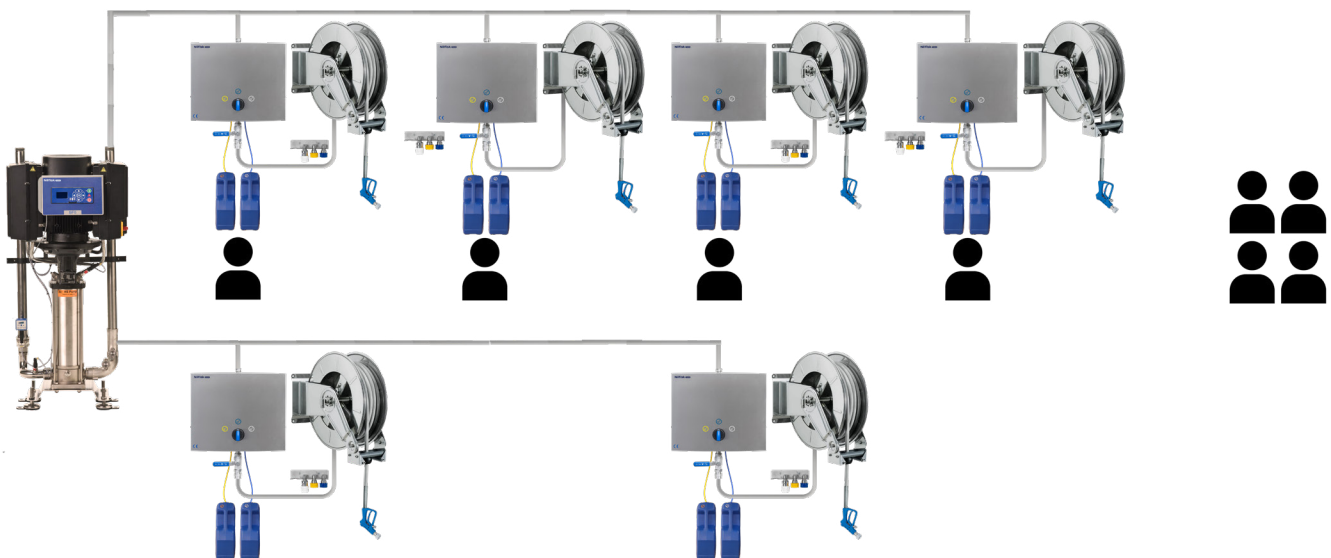
Important: The booster size must not be smaller than max. number of **simultaneous** users.

Important to consider:

Number of simultaneous users indicate the **minumum** number of drop stations to be connected to a Mainstation or a Booster.

It is allowed to connect additional drop stations (that can be used for cleaning in other zones at another time), but the max. number of simultaneous users must be respected.

This is to secure enough water volume and pressure and the best cleaning results. See picture 2.



Picture 2 - Booster BF4 with four additional drop stations in one zone (max 4 simultaneous users on one installation) and with two additional drop stations in second zone.

When a Mainstation, Booster or Drop station is ordered, it is delivered without accessories and installation kits. It must be purchased separately.

INSTALLATION KITS

INSTALLATION KIT FOR MAINSTATION & BW4 & BW4



Model	Item no.	8-digit
Installation kit for MH42, BF4	110002455	50002358

INSTALLATION KIT FOR BOOSTERS



Model	Item no.	8-digit
Installation kit for BF16	110002457	

FILTER FOR DROP STATIONS



It is recommended to install a filter in front of each drop station to avoid imputities from water.

Available in two versions: Made of brass or Stainless steel. In contact with water, brass performs well and is cheaper.

Model	Item no.	8-digit
Installation kit for drop stations	110002453	50001784
Filter brass 3/4"	603800	50002360
Filter SS 3/4"	0608081	

Installation kits for bigger Booster sizes must be sourced locally.

ACCESSORIES KITS

Mainstation and Drop station are delivered **without accessories**. Select between the following accessories kits:

GUN KIT WITH NOZZLES

What's in the box?

- 82 ft 1/2" food grade Purflex hose
- Heavy duty gun
- Male connector with o-ring
- 3 nozzles (For Rinse, Foam and disinfect)
- Nozzle holder



Model	Item no.	8-digit
Gun kit with nozzles	110003307	50001785

GUN KIT WITH TWIN NOZZLE

What's in the box?

- 82 ft 1/2" food grade Purflex hose
- Heavy duty gun
- Male connector with o-ring
- Twin nozzle (one nozzle for three cleaning functions: Rinse, Foam, Disinfect)



Model	Item no.	8-digit
Gun kit with Twin nozzle	110003308	50001786

ATLANTIC GUN KIT WITH NOZZLES

What's in the box?

- 82 ft 1/2" food grade Purflex hose
- Atlantic gun
- Male connector with o-ring
- 3 nozzles (for rinse, foam and disinfect)
- Nozzle holder



Model	Item no.	8-digit
Atlantic gun kit with nozzles	110001981	50002361

ATLANTIC SPRAY GUN - Handle Only



Model	Item no.	8-digit
Atlantic Spray Gun	624018	50002218

REPLACEMENT NOZZLES

Model	8-digit	
Replacement Twin Nozzle with male coupling 11 degrees, 2 gal/min	50001794	
Replacement Tornado "Rinse" Nozzle 15 degrees, 8 gal/min	50001795	
Replacement Sanitizing Nozzle 40 degrees, 8 gal/min	50001796	
Replacement Foam Nozzle 50 degrees, 40 gal/min	50001797	

HOSE REEL OR HOSE RACK

To mount the 82 ft food grade Purflex hose, a hose reel or a hose rack must be ordered.

HOSE REEL

Stainless steel automatic hose reel



Model	Item no.	8-digit
Hose reel AV3500	110000679	50001793
Swing fitting	110000680	
Water inlet hose 8.2 ft	110006712	50001790
Service: Mounting hose on hose reel	692005	
Safety slow retraction	110004231	

HOSE HOLDER

Stainless steel hose rack



Model	Item no.	8-digit
Hose holder	652400	50001792

CHEMICAL STORAGE

To store chemicals, user packs must be ordered.



Model	Item no.	8-digit
User pack left for chemical 1 (wall bracket and blue can)	0607900	
User pack right for chemical 2 (wall bracket and blue can)	0607901	

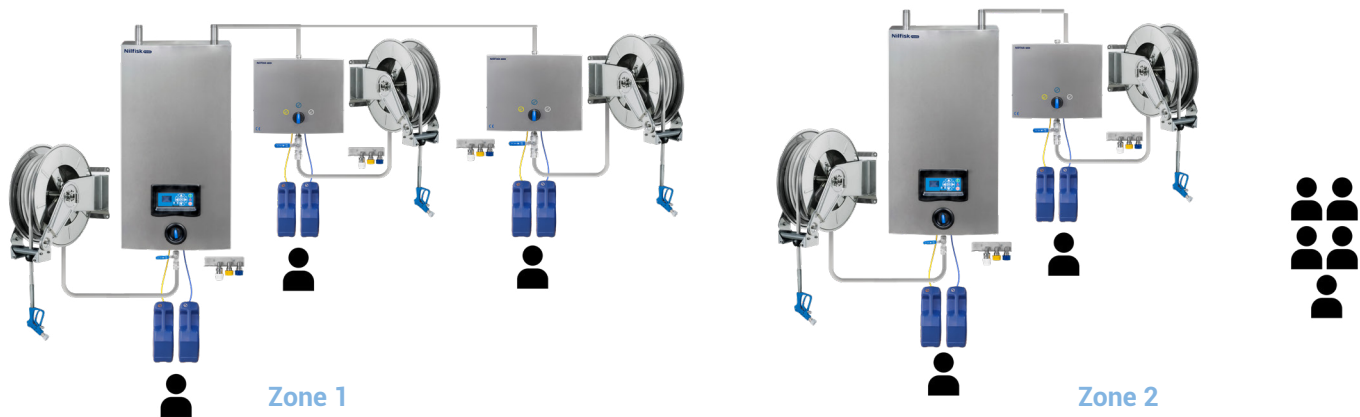
ORDER GUIDE FOR 5 SIMULTANEOUS USERS

Example 1 - Installation for 5 users with Mainstations

Assumption:

You decided to order 3 additional drop stations.

CHECK LIST	INSTALLATION WITH MAINSTATIONS
EQUIPMENT TO BOOST WATER	2 X Mainstations MH42
INSTALLATION KIT FOR EQUIPMENT	2 x Installation kit for Mainstations
DROP STATIONS	Mainstations functions as drop stations itself. If you have 5 simultaneous users, you need min. 3 additional drop stations. Remember - you can always install additional drop stations in other zones, but it is important to respect the maximum number of users working on one unit, to secure water supply. Choose between: Drop stations with ABS cover, Stainless steel cover, with 2 chemicals or with 3 chemicals
INSTALLATION KIT AND FILTER FOR DROP STATIONS	3 x installation kits for drop stations 3 x filters
ACCESSORIES KITS	5 x accessories kits (2 for Mainstations and 3 for drop stations). Choose between Gun kit with nozzles, Gun kit with twin nozzle or Atlantic gun kit with nozzles.
HOSE STORAGE	5 x hose reel + 5 x swing fitting + 5 x water inlet hose + 5 (optional) safety slow retraction
CHEMICAL STORAGE	5 x Jerry pack right (for chemical 1) 5 x Jerry pack left (for chemical 2)



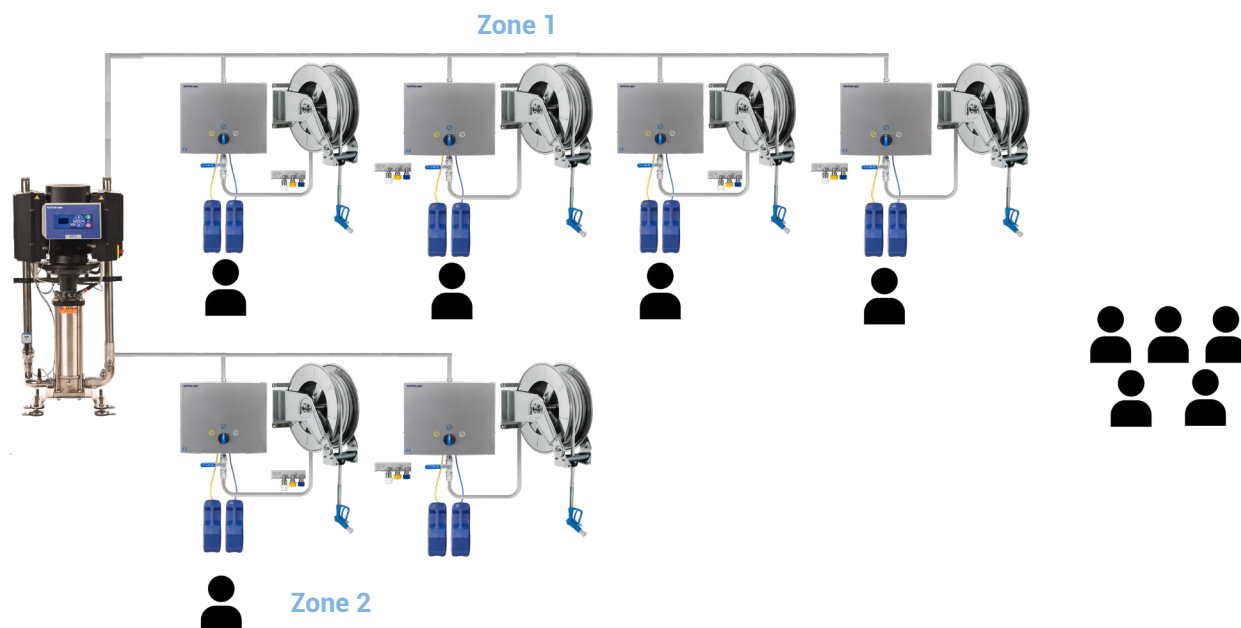
Picture 3 - Installation with Mainstaions for 5 simultaneous users

Example 2 - Installation for 5 users with a Booster

Assumption:

You decided to order Booster BF8 and 6 drop stations

CHECK LIST	INSTALLATION WITH BOOSTERS
EQUIPMENT TO BOOST WATER	1 X Booster BF 8 OR 2 x Booster BF4
INSTALLATION KIT FOR EQUIPMENT	1 x Installation kit for Booster BF8
DROP STATIONS	6 drop stations (5 for 5 simultaneous users and one additional in second zone) Remember - you can always install additional drop stations in other zones, but it is important to respect the maximum number of users working on one unit, to secure water supply. Choose between: Drop stations with ABS cover, Stainless steel cover, with 1, 2, or 3 chemicals
INSTALLATION KIT AND FILTER FOR DROP STATIONS	6 x installation kits for drop stations 6 x filters
ACCESSORIES KITS	6 x accessories kits Choose between Gun kit with nozzles, Gun kit with twin nozzle or Ball valve kit with nozzles.
HOSE STORAGE	6 x hose reel + 6 x swing fitting + 6 x water inlet hose + (optional) safety slow retraction
CHEMICAL STORAGE	6 x Jerry pack right (for chemical 1) 6 x Jerry pack left (for chemical 2)



Picture 4 - Installation with Booster BF8 for 5 simultaneous users

ORDER GUIDE FOR 16 SIMULTANEOUS USERS

Example 1 - Installation for 16 simultaneous users with Mainstations.

In general when there is a big number of simultaneous users, we advice to install Boosters, because installation with 4 mainstations would be more expensive.

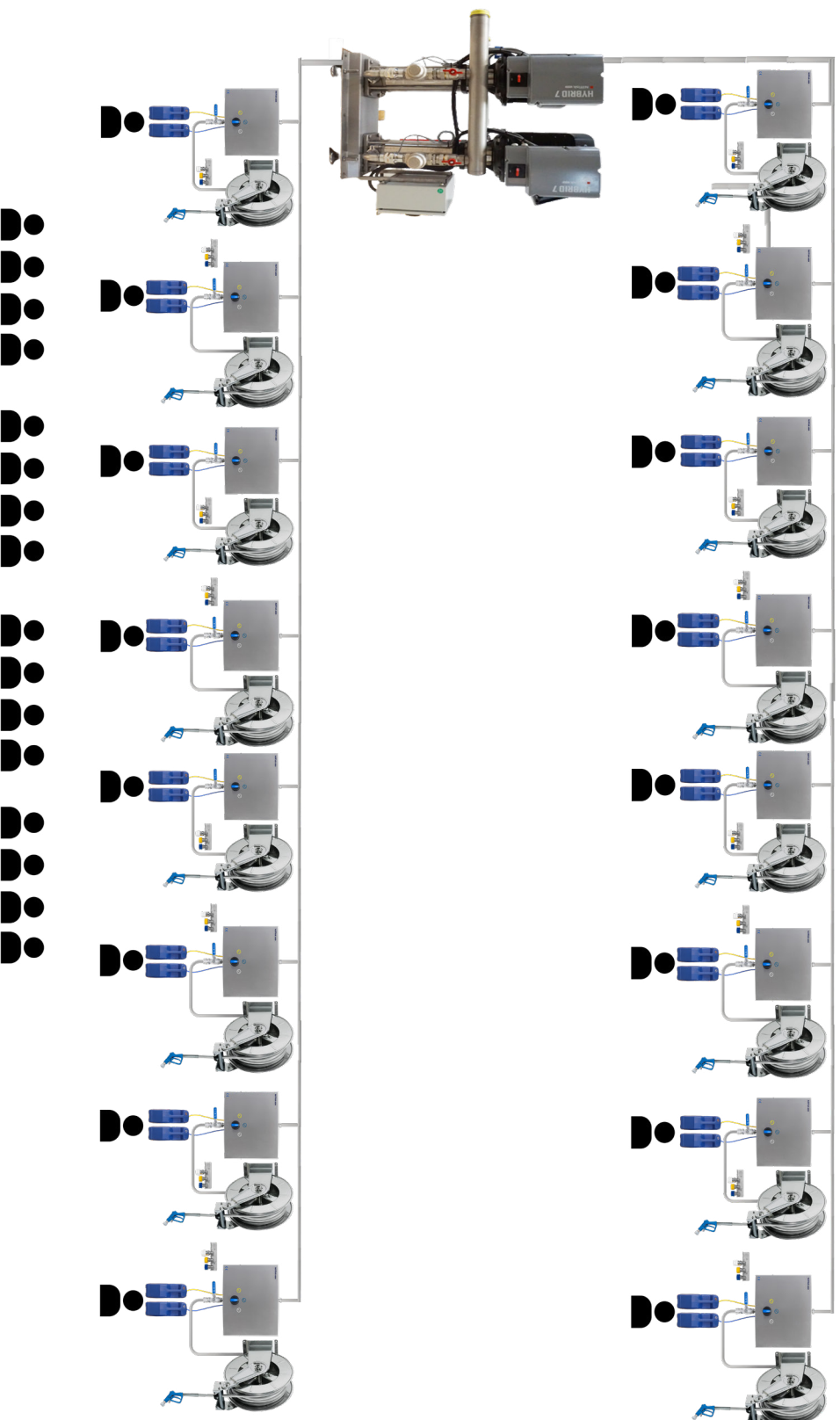
Depending on the number of cleaning zones and piping available at the customer, it could be possible to order 1 x Mainstation with 3 drop stations in one zone, and additonal boosters (BF 4 and BF 8) to get sufficient pressurized water supply for 16 simultaneous users (4 + 4 + 8).

Example 2 - Installation for 16 simultaneous users with a Booster

Assumption:

You decided to order Booster BF16 and 16 drop stations

CHECK LIST	INSTALLATION WITH BOOSTERS
EQUIPMENT TO BOOST WATER	1 X Booster BF 16 OR 2 x Booster Floor BF8
INSTALLATION KIT FOR EQUIPMENT	1 x Installation kit for Booster BF16
DROP STATIONS	16 drop stations Choose between: Drop stations with ABS cover, Stainless steel cover, with 1, 2 or 3 chemicals
INSTALLATION KIT AND FILTER FOR DROP STATIONS	16 x installation kits for drop stations 16 x filters
ACCESSORIES KITS	16 x accessories kits Choose between Gun kit with nozzles, Gun kit with twin nozzle or Ball valve kit with nozzles.
HOSE STORAGE	16 x hose reel + 16 x swing fitting + 16 x water inlet hose
CHEMICAL STORAGE	16 x Jerry pack right (for chemical 1) 16 x Jerry pack left (for chemical 2)



Picture 5 - Installation with a Booster BF16 for 16 simultaneous users

CHECK LIST



CHECK LIST	SELECT ONE FROM EACH DROPDOWN
EQUIPMENT TO BOOST WATER	
INSTALLATION KIT FOR EQUIPMENT	
DROP STATIONS	
INSTALLATION KIT AND FILTER FOR DROP STATIONS	
ACCESSORIES KITS	
HOSE STORAGE	
CHEMICAL STORAGE	

MOBILE CLEANING EQUIPMENT

TYPHOON

Mobile cleaning station with three cleaning functions in one unit.

Built in pump increase water pressure up to 25 bar/362 psi.

Safe - dry and temperature protection.

Note: Ecolab has 2 Trial Typhoon units available. Connect with PLM to reserve.

Connection to 480V and compressed air is required.

Typhoon = Mobile mainstation for one user



Models available:

Typhoon - 1 cleaning person, 2 chemicals

Model	Item no.	8-digit
Typhoon without compressor	119000658	53004333

ACCESSORIES

Typhoon is delivered without accessories, chemical jerry packs and water inlet hose. It must be ordered separately.

Select one accessories kit:

Model	Item no.	8-digit
Gun with nozzles	110003307	50001785

Atlantic gun-with nozzles kit	110003865	50002361
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Model	Item no.	8-digit
User pack left for chemical 1 (wall bracket and blue can)	0607900	
User pack right for chemical 2 (wall bracket and blue can)	0607901	

Model	Item no.	8-digit
Connection hose 32 ft. 3/4"	602400	50001791

LOW PRESSURE/TAP WATER CLEANING EQUIPMENT

XP FOAMER

Mobile cleaning station with three cleaning functions in one unit.

Built in pump increases water pressure up to 10 bar/ 145 psi.

Built in compressor.

XP foamer = Mobile mainstation for one user



Models available:

XP foamer - 1 cleaning person, 2 chemicals

Model	Item no.	8-digit
Xp foamer USA	110002426	-

What's in the package:

1 x XP foamer, 1 x Foam nozzle, 1 x Tornado rinse nozzle, 2 x chemical suction hoses, Chemical limiting nozzles.

XP foamer does not require the installation kit.

ACCESSORIES

XP foamer is delivered without accessories, chemical jerry packs and trolley. It must be ordered separately.

Model	Item no.	8-digit
Acc kit.	110003833	-

Model	Item no.	8-digit
Trolley stainless steel	110002944	-
2 x can holders 13kg/28 lbs	110003614	-

What's in the package:

Purflex Food grade hose
15m/50ft

Heavy duty gun

Water inlet hose 2.5m/8.2 ft

TAP CLEANING WATER EQUIPMENT

Nommo Tap Water Unit

Hybrid Nommo for tap water foam/spray applications

Nommo Tap Water Unit

Model	Item no.	8-digit
Hybrid Nommo for tap water foam application	110005688	50002359
Nommo accessory kit	110005013	50002400



Accessory Kit



CHECK LIST



CHECK LIST	SELECT ONE FROM EACH DROPDOWN
MOBILE UNIT	
INSTALLATION KIT FOR EQUIPMENT	
TROLLEY	
ACCESSORIES KIT	
CHEMICAL STORAGE	

Product List

Ecolab material number	Description	Nilfisk Food Part No.
Wall mounted units		
53004334	Hybrid 7 Mainstation MH42 HYB MAINSTA PKD	110007232
53004338	Hybrid Satellite SD21 CMPCT SST PKD - 2 products	110003941
53004340	Hybrid Satellite SU32 HYB SAT SST PKD - 3 products	110003343
50002359	Nommo tap water, wall mounted cleaning station	110005688
Mobile units		
53004333	Hybrid TYPHOON W/O CPRSR PKD	119000658
Accessory kits and hose storage		
50002361	Atlantic Gun and 3 nozzle kit for SD/SU Hybrid Satellite	
50001785	SD/SU HYB SAT 82FT HS HDGUN 3NZL KIT	110003307
50001786	SD/SU HYB SAT 82FT HS HDGUN TWINNZL KIT	110003308
50001787	SD/SU HYB SAT 82FT HS BALL VLV 3NZL KIT	110001981
50001788	SD/SU HYB SAT 82FT HS BALL VLV TWINNZL KIT	110003112
50001789	SD/SU HYB SAT 55FT HS VLV TWINNZL KIT (for low pressure use)	110006806
50001792	Hybrid Hose Holder, Stainless Steel	652400
50001793	Hybrid Reel Hose, Automatic, Stainless Steel	110000679
Replacement / Spare Hoses		
50001790	Hybrid HOSE FLEX 1/2 X 8.2FT	110006712
50001791	Hybrid HOSE FLEX 3/4 X 32FT TYPHOON	602400
50001790	Hybrid Flex Hose, 1/2 Inch X 8.2 Feet, Gray	110006712
50001791	Hybrid Typhoon Purflex Hose, 3/4 Inch X 32 Feet	602400
Installation Kits		
50001784	Hybrid SD/SU SAT INSTALL KIT	110002453
50002358	Hybrid Mainstation MH42, BF4 install kit	110002455
Replacement Nozzles		
50001794	Hybrid REPL TWIN NZL W/MALE CPLG, 11 Degree, 2 gallons/Minute	110000007
50001795	Hybrid Replacement Tornado Rinse Nozzle, 15 Degree, 8 gallons/minute, SST	614066
50001796	Hybrid Replacement Sanitizing Nozzle, 40 Degree, 8 gallons/Minute	110000660
50001797	Hybrid Replacement Foam Nozzle, 50 Degree, 40 gallons/minute, Stainless Steel	440400
50001808	Hybrid Replacement Tornado Rinsing Lance, 25 Degree, 8 gallons/minute, SST	353700
Spare Parts		
50001809	Hybrid Replacement Shaft Seal Grundfos CRN 1/3/5	634051
50001811	Hybrid Replacement Flow Switch, 1/4 Inch, 24VDC	110000963
50001812	Hybrid Replacement Pressure Sensor, 0-580 PSI, 1/4 Inch	110006663
50001813	Hybrid Replacement Temperature Sensor, PT1000	110004713
50001814	Hybrid Hybrid Mainstation O-Ring Kit	110003513
50001815	Hybrid Replacement Sensor Cable PT 1000 and Flow Sensor	110005218
50001816	Hybrid Replacement SD/SU Hybrid Satellite O-Ring Kit	110003276
50001817	Hybrid Replacement Chemical Valve, Non-Return	110001102
50001818	Hybrid Replacement Air Valve, Non-Return	110001979
50001819	Hybrid Replacement Water Valve, Non-Return	110003279
50001820	Hybrid Replacement Dongle, Mobile Interface 301 (MI 301)	110003294
92214058	Hybrid XPFOAM Replacement Front Cover Kit	110002630
50002212	Hybrid Replacement Flow Sensor 5V 16 Bar Stainless Steel	110000889
50002213	Hybrid Replacement Flex Tubing Blue 50 Feet	110001214
50002214	Hybrid Replacement Flex Tubing Yellow 50 Feet	110001197
50002215	Hybrid Replacement Non-Return Valve 6 MM Technopolymer	608135
50002216	Hybrid Replacement Time Delay Fuse 5MM x 20 MM 35 Amp 250V	110003743
50002217	Hybrid Replacement Flow Switch 1/4 Inch 24 VDC, Normally Closed, Polybutylene Terephthalate (PBT)	110000973
50002360	Hybrid Replacement Strainer tee 3/4" Brass	603800
85294023	Chemical pick up tube filter, 1/8 inch, 1/4 inch hose barb, polypropylene	
50002218	Hybrid Replacement P3 Atlantic 450 Spray GUN ONLY, 1/2 Inch Female Thread Swivel with 1/2 Inch Quick Coupling, SS	624018