ULTRA FOG®
FIRE EXTINGUISHING SYSTEM

Client Product Catalogue

2020

Rolling Stock | Marine | Land | Offshore

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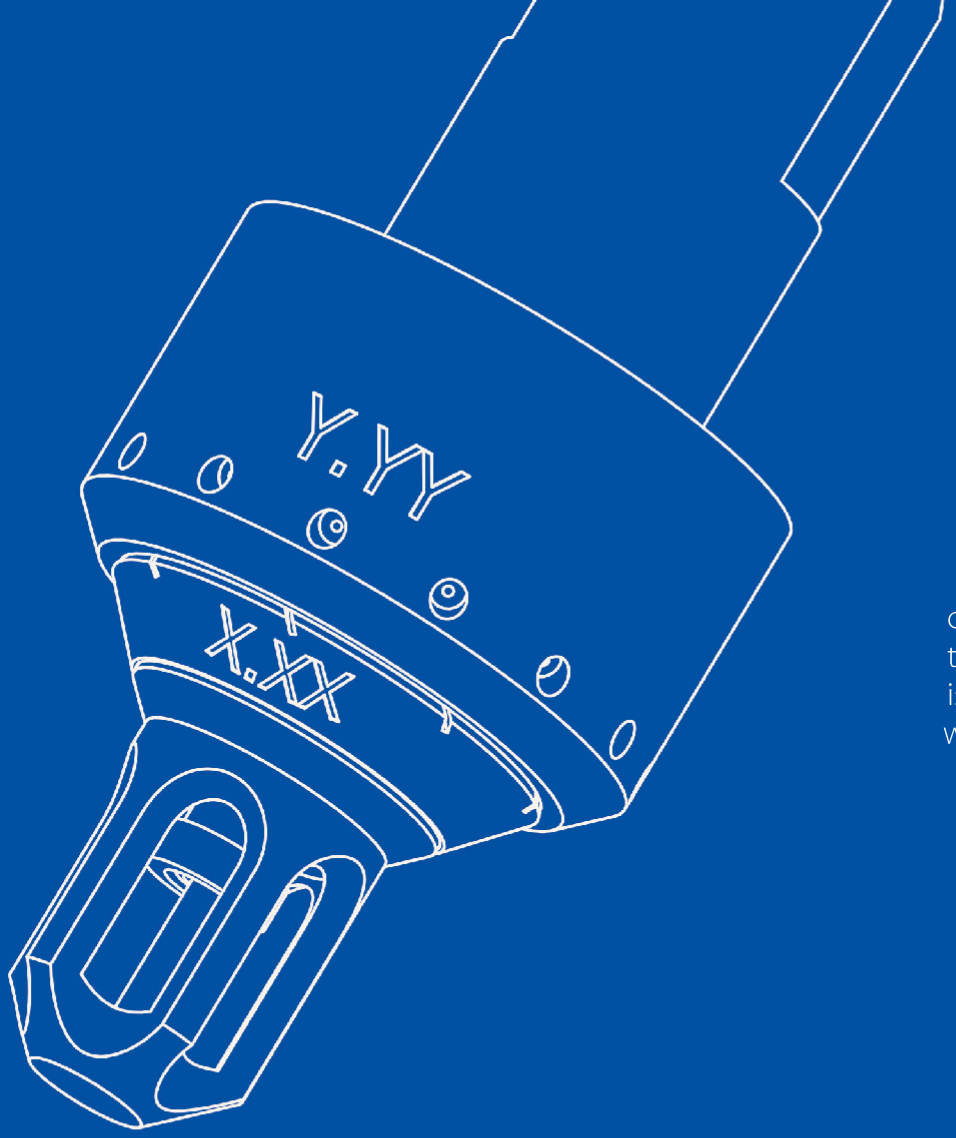
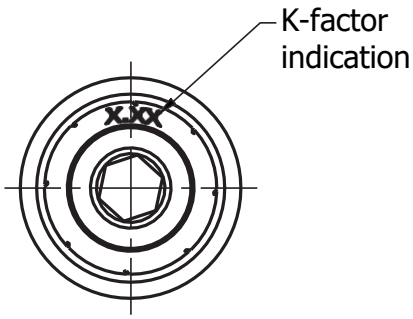
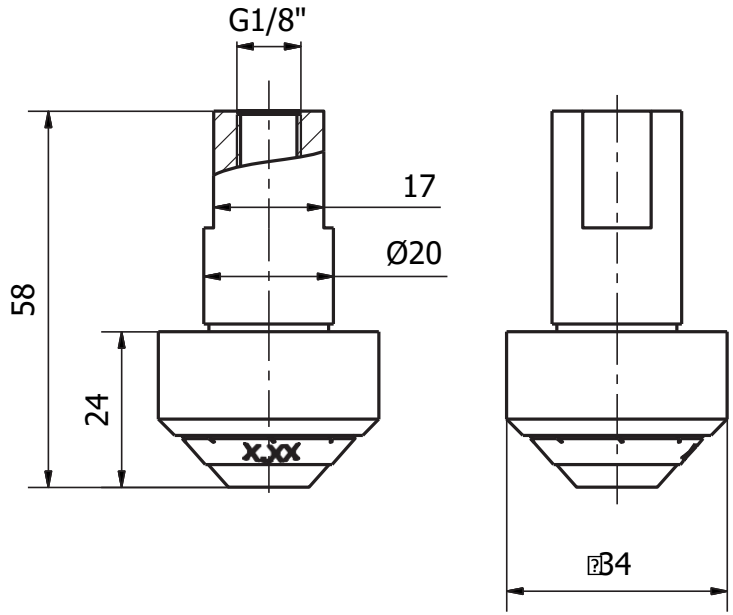


1. NOZZLES

The sprinkler nozzle in Ultra Fog sprinkler system is used to create water mist from pressurised water. There are two main types of nozzles in the Ultra Fog system but common to both is the way the water mist is created. In the Ultra Fog nozzle the water is pressed through small grooves in a washer which create jets of water which collide, to create even smaller droplets and provide more effective fire extinguishing.

Both nozzle types are available in models that are to be mounted either with the piping inside a wall or ceiling or on the surface of a wall or ceiling. The nozzles can be coated or painted in almost any colour metallic finish. As standard, the nozzles are made of polished stainless steel. As an option nozzles are available in higher grades of stainless steel with increased (C5) corrosion resistance.





202-XXX-O-QM				
Nozzle no.	K-factor	Standard		
		Land	Marine	Transport
202-061-O	0.61			
202-027-O	0.27			UNI 11565:2016
202-035-O	0.35	ISO 15371:2009		
202-064-027-062-O	0.575			UNI 11565:2016
202-073-O	0.73	IMO 1165 UP TO 1000M3	IMO 1165 UP TO 1000M3	
202-073-O-F	0.73	FM5560 ENGINE + TURBINE UP TO 500M3		
202-073-O-G	0.73	ISO 15371:2015	ISO 15371:2015	
202-08-O	0.8			
202-093-O	0.93			
202-13-O	1.3			
202-151-O	1.51	IMO 913 / IMO 1387	IMO 913 / IMO 1387	
202-176-O	1.76			
202-19-O	1.9			
202-209-O	2.09	IMO 1165 UP TO 4955M3	IMO 1165 UP TO 4955M3	
202-209-O-F	2.09	FM5560 ENGINE + TURBINE UP TO 1315M3		
202-23-O	2.3			

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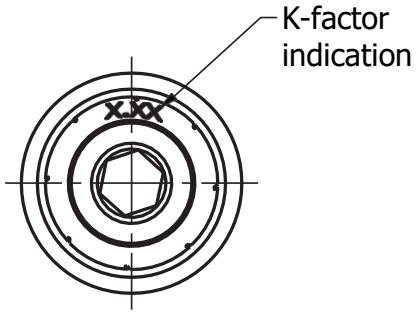
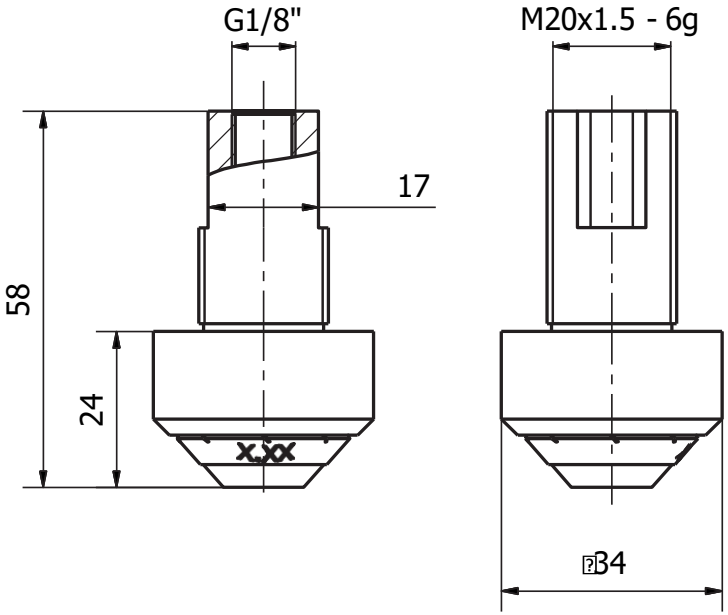
1.1 Low Flow Open Nozzle

202-XXX-O-QM





202-XXX-O-M20-QM			
Nozzle no.	K-factor	Standard Land	Marine
202-035-O-M20	0.35	ISO 15371:2009	
202-061-O-M20	0.61		
202-073-O-M20	0.73	1165 UP TO 1000M3	1165 UP TO 1000M3 & ISO 15371:2009 GALLEY D
202-08-O-M20	0.8		
202-176-O-M20	1.76		
202-19-O-M20	1.9		
202-209-O-M20	2.09	IMO 1165 UP TO 4955M3	IMO 1165 UP TO 4955M3
202-23-O-M20	2.3		

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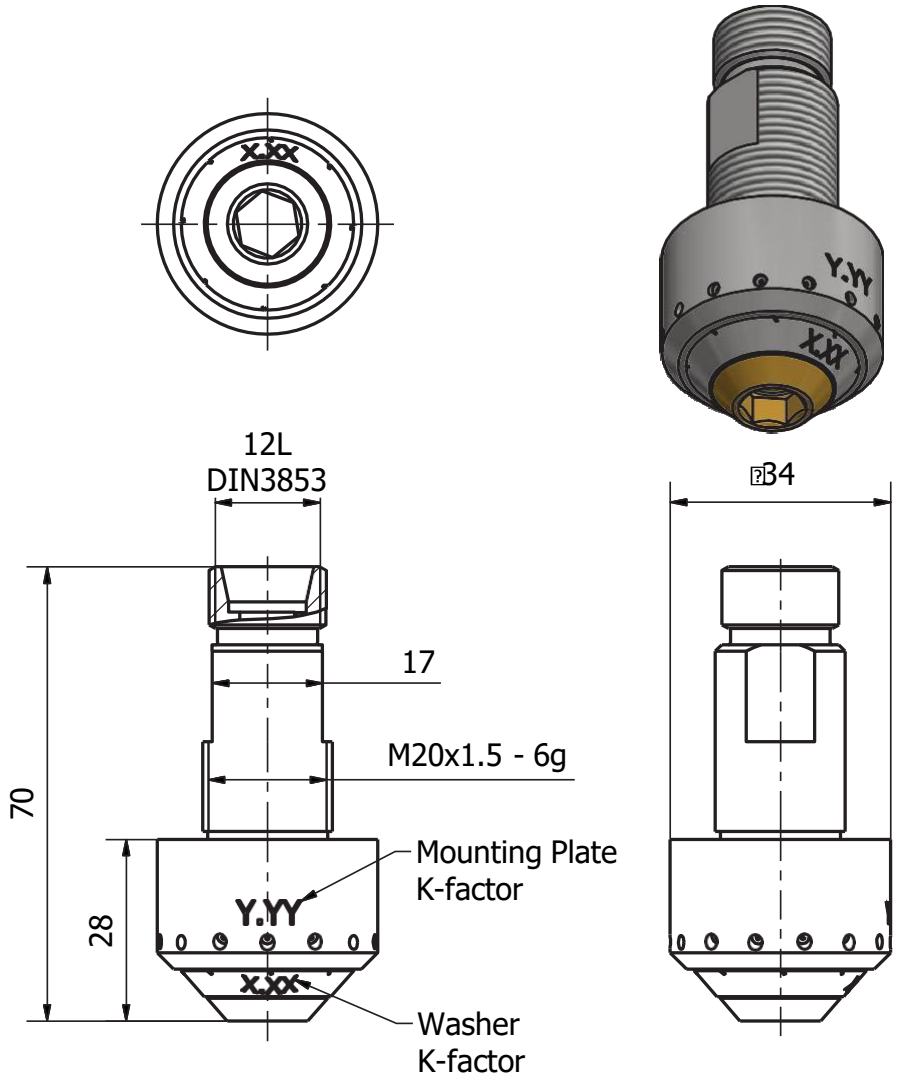
1.2 Low Flow Open Nozzle M20 Mounting

202-XXX-O-M20-QM



202-YYY-XXX-O-QM					
Nozzle	Mounting Plate K-factor	Washer K-factor	Nozzle K-factor	Standard	
				Land	Marine
202-240-061-O	2.4	0.61	3.01		IMO 1268
202-240-080-O	2.4	0.8	3.2	IMO 913 / IMO 1387	IMO 913 / IMO 1387
202-200-035-B-W	2	0.35	2.35		IMO 1268
202-200-130-O	2	1.3	3.3	IMO 913 / IMO 1387	IMO 913 / IMO 1387
202-300-035-O	3	0.35	3.35	IMO 1272 / IMO 1430	IMO 1272 / IMO 1430
202-260-160-O	2.6	1.6	4.2	IMO 1272 / IMO 1430	IMO 1272 / IMO 1430
202-600-035-O	6	0.35	6.35		IMO 1268

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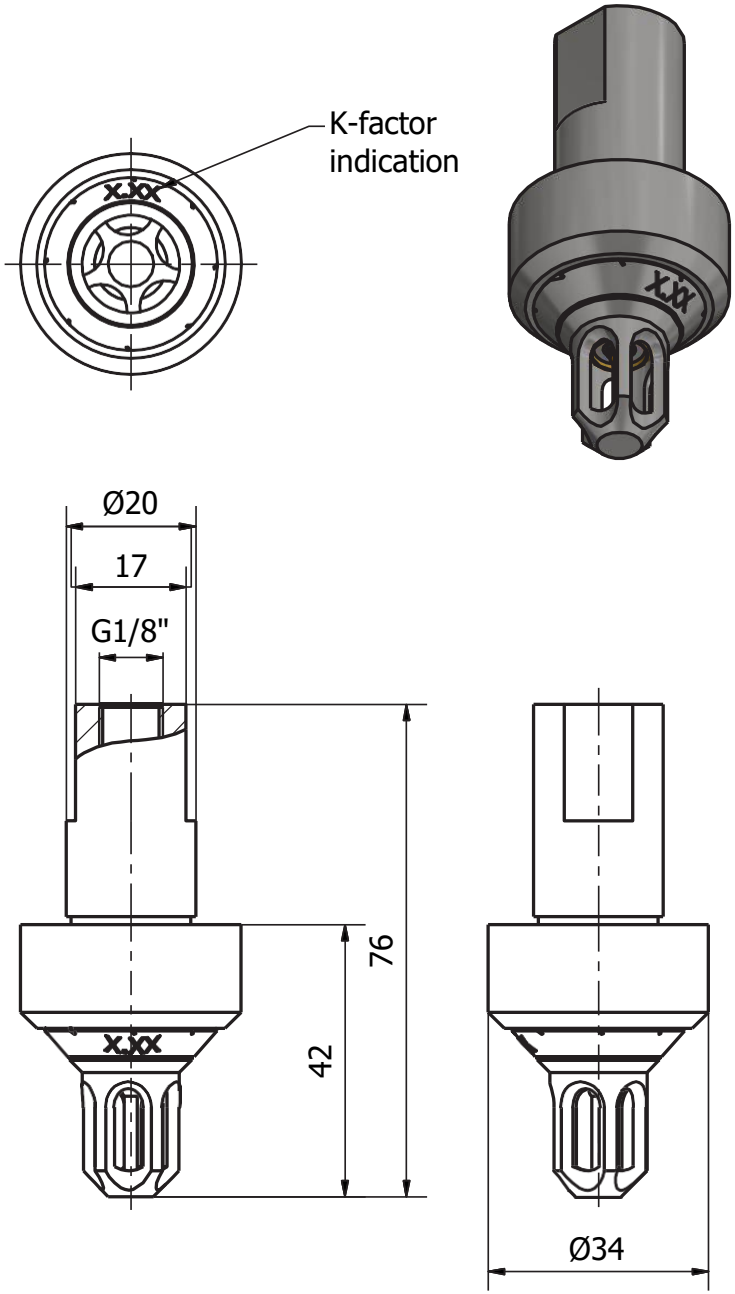
1.3 High Flow Open Nozzle

202-YYY-XXX-O-QM



603-XXX-B-QM			
Nozzle	K-factor	Land Standard	Marine
603-061-B	0.61		
603-073-B	0.73		
603-08-B	0.8	INSTA 900:3	IMO A.265
603-08-B-S	0.8	INSTA 900:3	
603-093-B-W			IMO A.265
603-093-B-W-S		CEN/TS 14972:2011 Annex B, LH	
603-13-B	1.3		IMO A.265
603-151-B	1.51		
603-176-B	1.76		
603-19-B	1.9		IMO A.265
603-209-B	2.09		
603-23-B	2.3		
603-25-B	2.5		

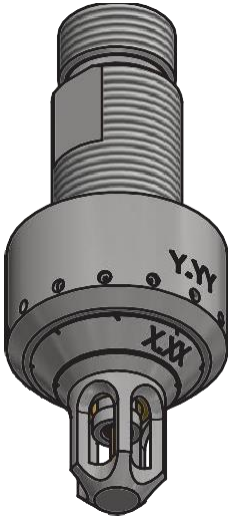
Bulb Types	
Bulb Colour	Temperature
ORANGE	57°C
RED	68°C
YELLOW	79°C
GREEN	93°C
BLUE	141°C
MAUVE	182°C
BLACK	260°C

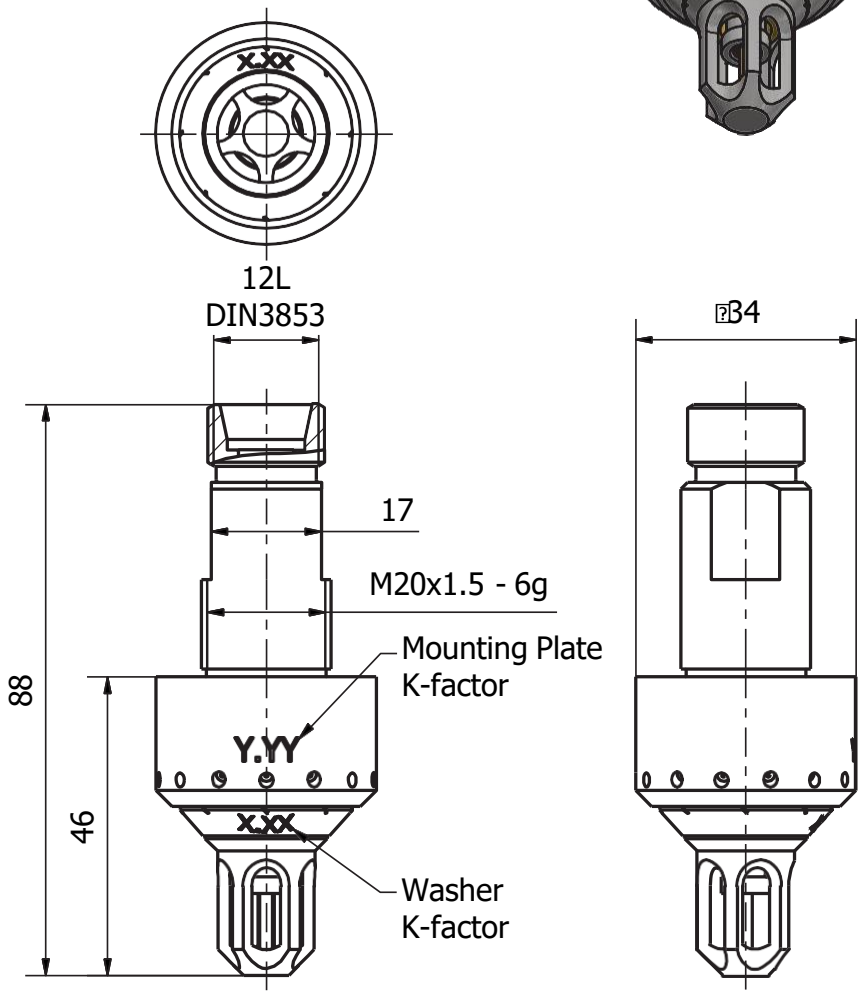
NOTES:

All nozzles available with all bulb colours / temperatures.

1.4 Low Flow Bulb Nozzle

603-XXX-B-QM





603-YYY-XXX-B-QM					
Nozzle	Mounting Plate K-factor	Washer K-factor	Nozzle K-factor	Standard	
				Land	Marine
603-064-073-B	0.64	0.73	1.37	OH1 CEN/TS 14972:2011 Annex B	IMO A.265
603-064-073-B-S	0.64	0.73	1.37	OH1 CEN/TS 14972:2011 Annex B	
603-130-061-B	1.3	0.61	1.91	OH1 CEN/TS 14972:2011 Annex B	IMO A.265
603-130-061-B-S	1.3	0.61	1.91	OH1 CEN/TS 14972:2011 Annex B	
603-200-061-B	2	0.61	2.61		IMO A.265
603-240-061-B	2.4	0.61	3.01		IMO 1268
603-050-260-B-W	0.5	2.6	3.1		IMO 1268
603-050-260-B-W-S	0.5	2.6	3.1	OH1 CEN/TS 14972:2011 Annex B	IMO 1269
603-240-080-B	2.4	0.8	3.2		
603-260-061-B	2.6	0.61	3.21		IMO A.265
603-300-035-B	3	0.35	3.35	OH2 CEN/TS 14972:2011 Annex B.	IMO 1272
603-300-061-B	3	0.61	3.61		IMO A.265
603-300-061-B-F	3	0.61	3.61	FM approved 5560 LH nozzle	IMO A.266
603-260-160-B	2.6	1.6	4.2	OH1 CEN/TS 14972:2011 Annex A3 & OH2 CEN/TS 14972:2011 Annex B & OH4 CEN/TS 14972:2011 Annex B	IMO 1272
603-260-160-B-S	2.6	1.6	4.2	OH1 CEN/TS 14972:2011 Annex A3 & OH2 CEN/TS 14972:2011 Annex B & OH4 CEN/TS 14972:2011 Annex B	
603-260-230-B	2.6	2.3	4.9	OH3 ST1 and ST2, according to VDS	
603-260-230-B-S	2.6	2.3	4.9	OH3 ST1 and ST2, according to VDS	
603-600-035-B	6	0.35	6.35		IMO 1268

Bulb Types	
Bulb Colour	Temperature
ORANGE	57°C
RED	68°C
YELLOW	79°C
GREEN	93°C
BLUE	141°C
MAUVE	182°C
BLACK	260°C

NOTES:

All nozzles available with all bulb colours / temperatures.

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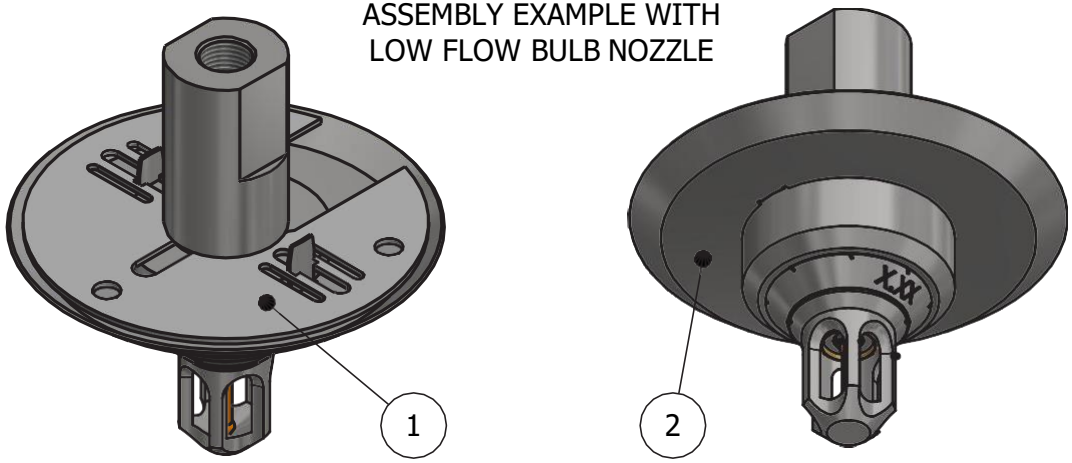
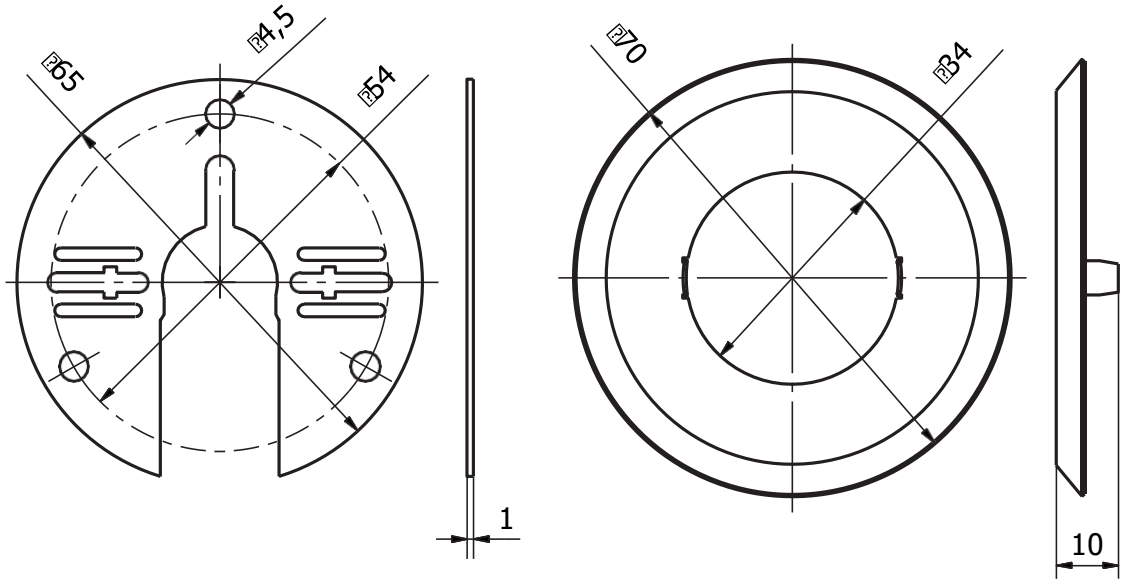
1.5 High Flow Bulb Nozzle

603-YYY-XXX-B-QM

ASSEMBLY EXAMPLE WITH
LOW FLOW BULB NOZZLE





ITEM	QTY	PART NUMBER	DESCRIPTION
2	1	20010401-012	Nozzle cover plate
1	1	20010401-013	Nozzle bracket

NOTES:

Nozzle is not included in scope of Nozzle Cover Kit.

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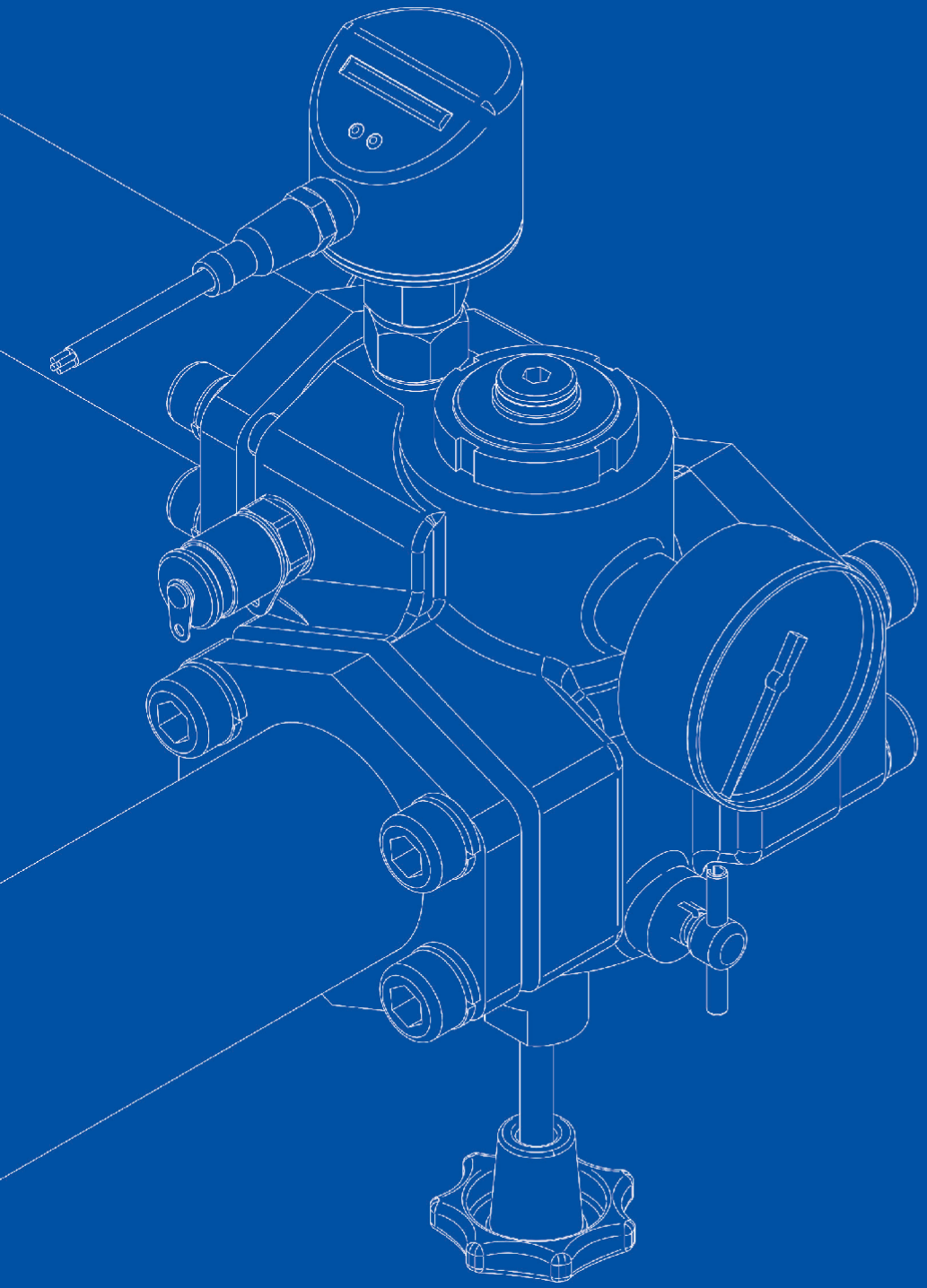
1.6 Nozzle Cover Kit

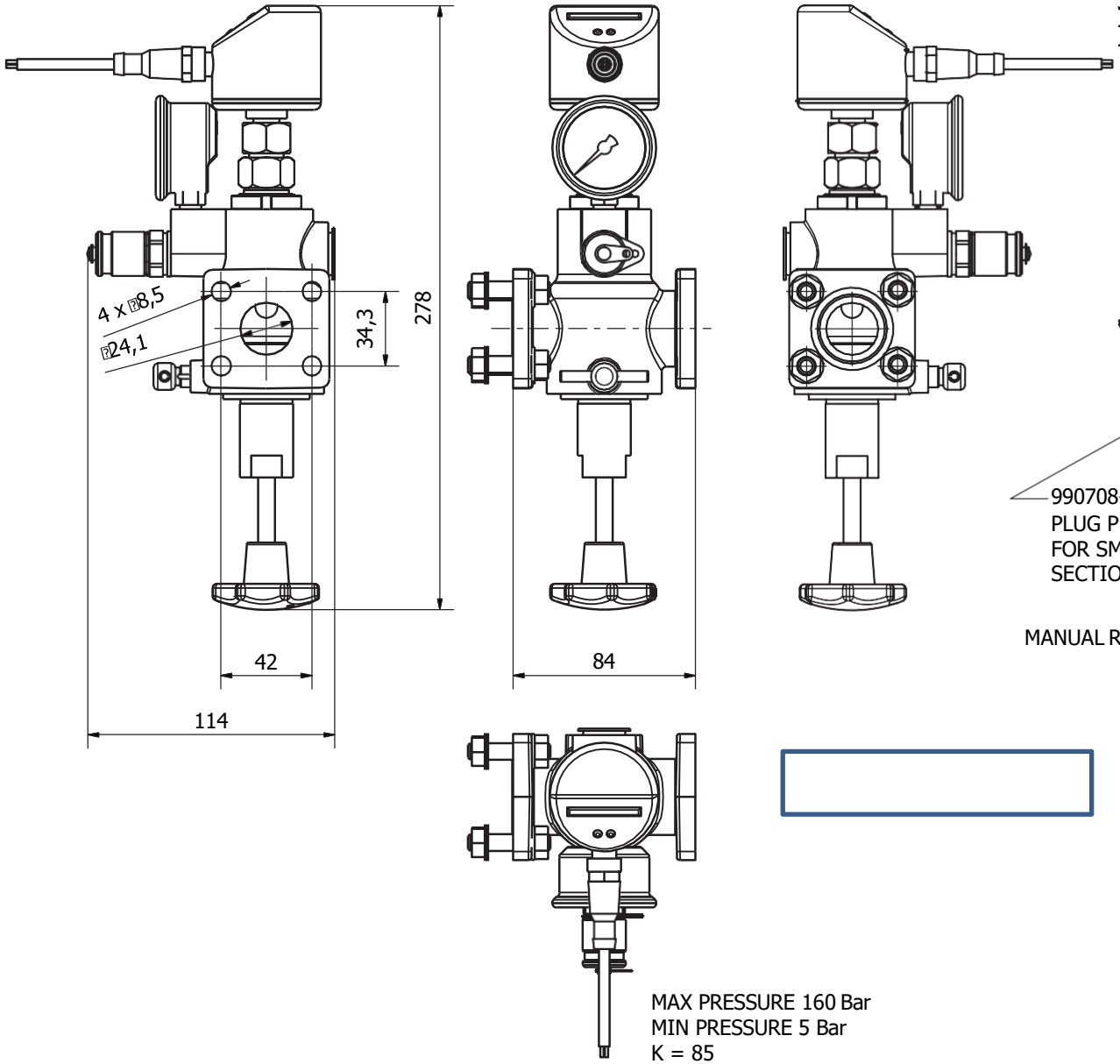
20010401-101-QM



2. SECTION VALVES

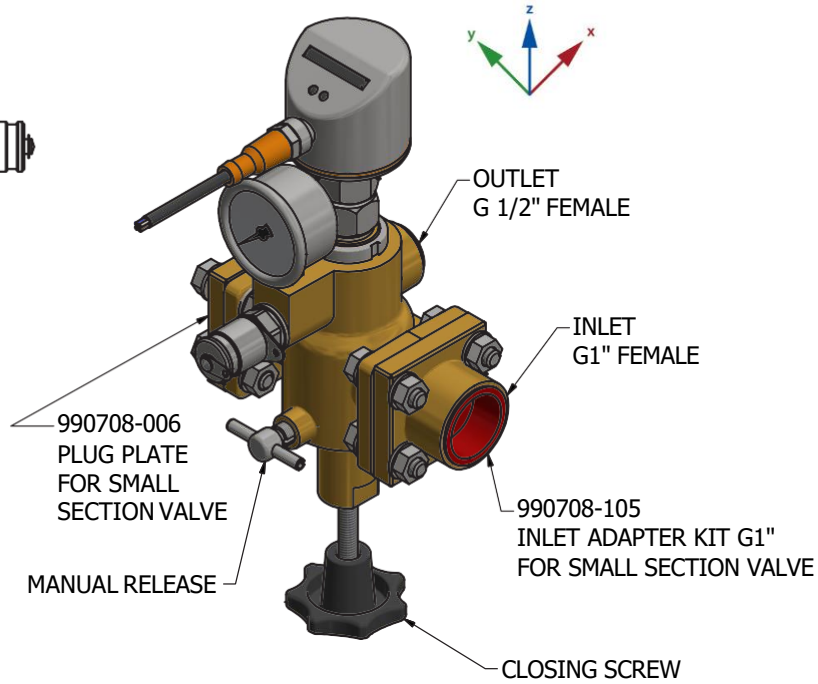
The Hydraulic Section Valve is typically used in the wet pipe system and is normally open consisting of a pressure gauge and flow switch. The valve is used to operate and direct water to designated sections of the system. Either small or large section valves can be used, depending on the requirements of water.

The electrical section valve is typically used in the dry pipe system and is normally closed, consisting of a pressure gauge and solenoid. The valve is used to operate and direct water to designated sections of the system. Either small or large section valves can be used, depending on the requirements of water and are manually activated via a release panel or automatically activated via a third-party fire detection system, depending on the system's application.



MAX PRESSURE 160 Bar
MIN PRESSURE 5 Bar
K = 85
Weight 2,5 kg

SECTION VALVE EQUIPPED IN INLET ADAPTER & PLUG PLATE



990708-106 PLUG PLATE FOR SMALL SECTION VALVE -
990708-105 INLET ADAPTER KIT G1" FOR SMALL SECTION VALVE -

NOTES:

1.Modular design available. Assembly of small hydraulic & electric section valves in a row.

2. Components closing section valve:
- 990708-106 PLUG PLATE SMALL SECTION VALVE
- 990708-105 INLET ADAPTER KIT G1" SMALL SECTION VALVE are not inlcuded in section valve kit and have to be ordered separately.

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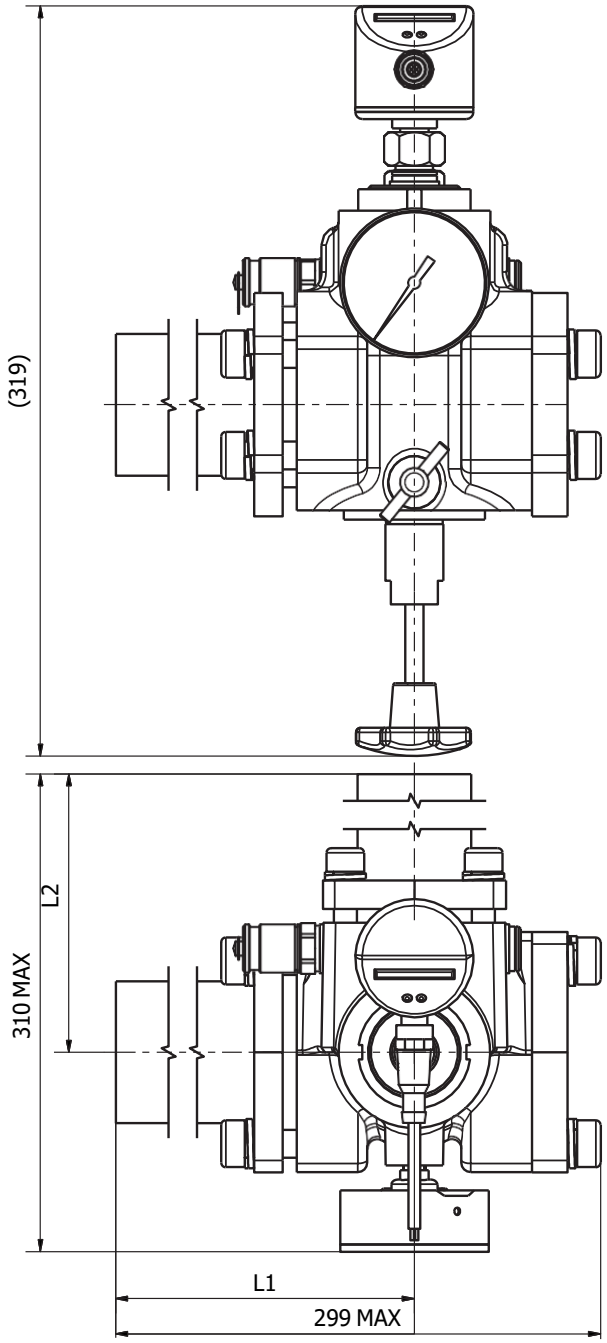
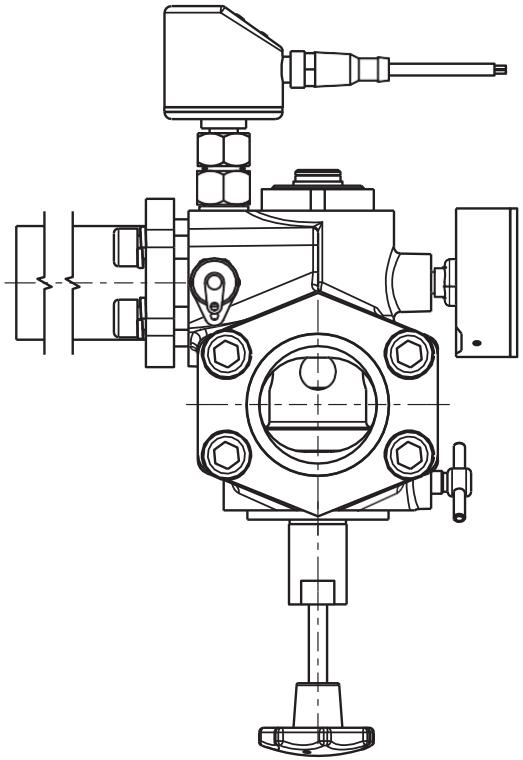
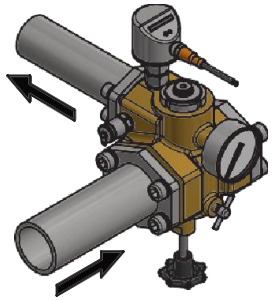
2.1 Small Section Valve Hydraulic

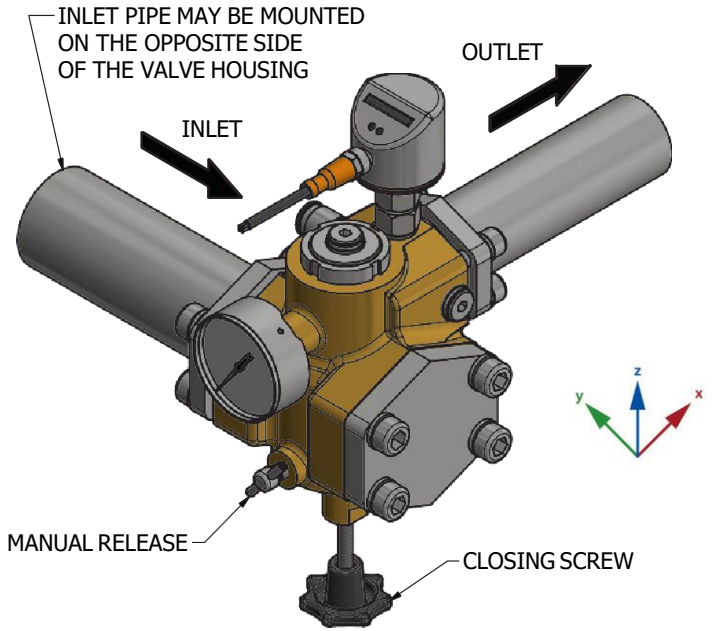




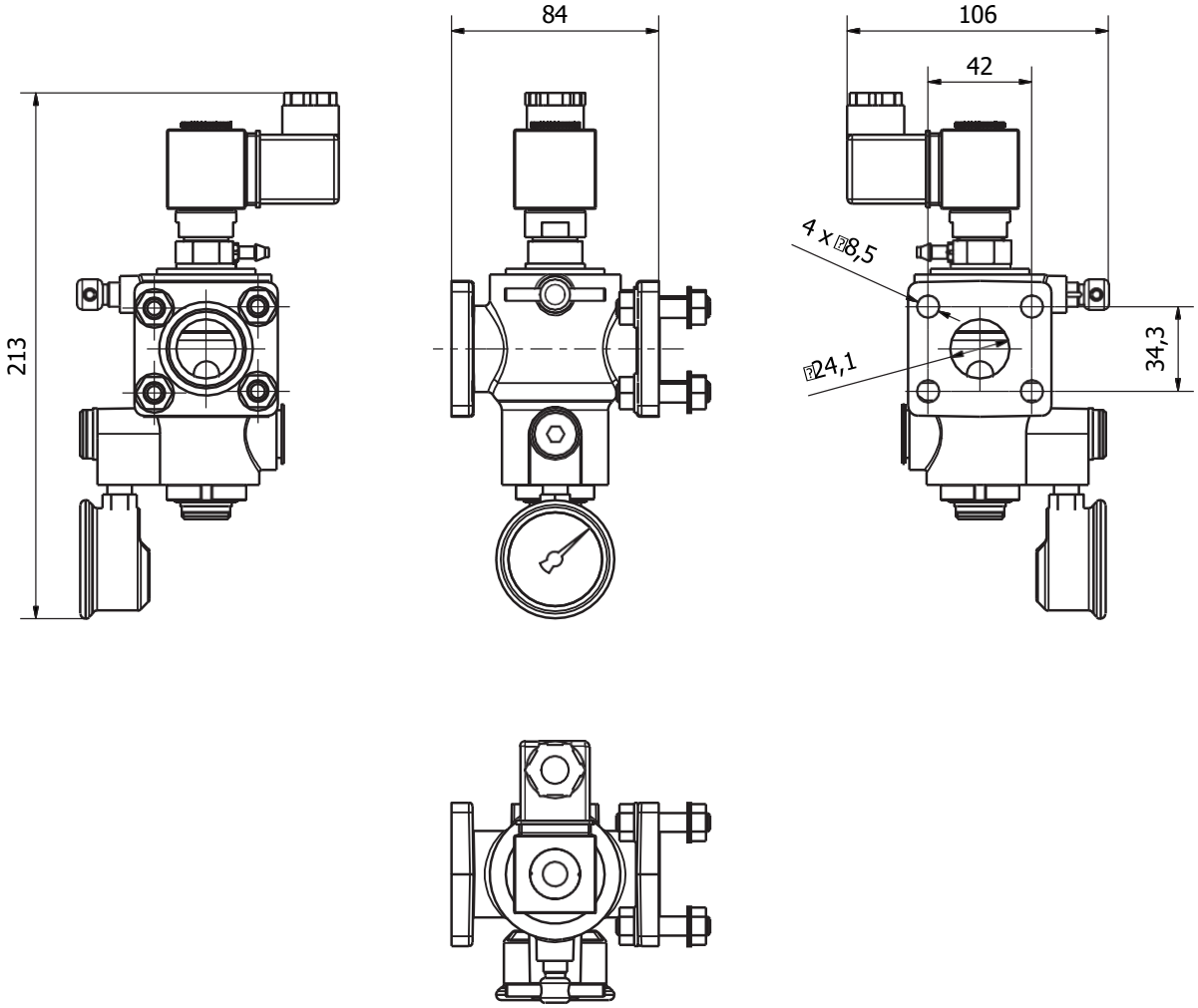


MAX WORKING PRESSURE 200 Bar
MIN PRESSURE 5 Bar
K = 220
Weight 10 kg

SECTION VALVE WITH INLET AND OUTLET CONNECTIONS



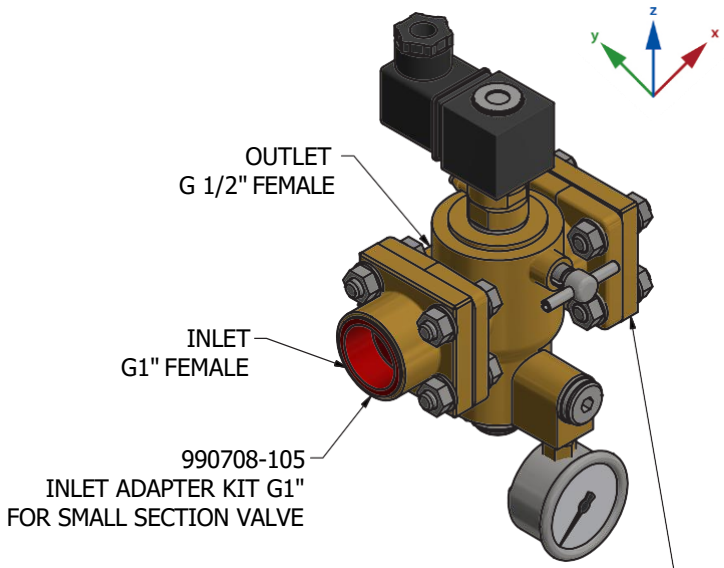
Part no.	Inlet [mm]	Outlet [mm]	L1 [mm]	L2 [mm]
20020626-101 I28XO28	Ø28	Ø28	200	185
20020626-101 I42XO28	Ø42	Ø28	200	185
20020626-101 I42XO42	Ø42	Ø42	200	205
20020626-101 I42XO48	Ø42	Ø48.3	200	225
20020626-101 I48XO28	Ø48.3	Ø28	200	185
20020626-101 I48XO42	Ø48.3	Ø42	200	205
20020626-101 I48XO48	Ø48.3	Ø48.3	200	225
20020626-101 I60XO28	Ø60.3	Ø28	220	185
20020626-101 I60XO42	Ø60.3	Ø42	220	205
20020626-101 I60XO48	Ø60.3	Ø48.3	220	225



MAX PRESSURE 160 Bar
MIN PRESSURE 5 Bar
K = 85
Weight 2,5 kg

990708-106 PLUG PLATE FOR SMALL SECTION VALVE -
990708-105 INLET ADAPTER KIT G1" FOR SMALL SECTION VALVE -

SECTION VALVE EQUIPPED IN INLET ADAPTER & PLUG PLATE



Notes:

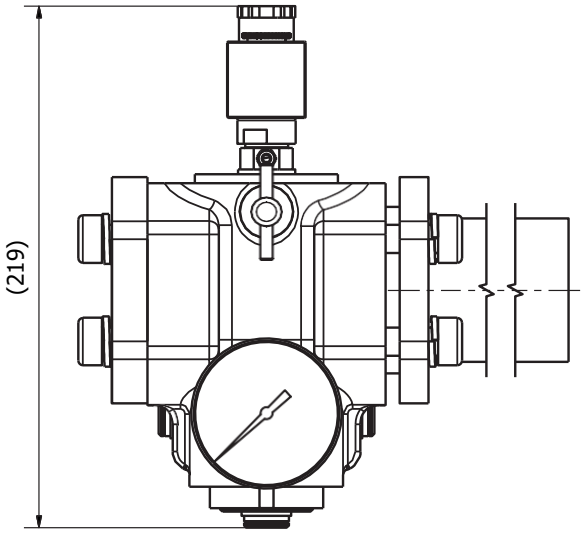
1.Modular design available. Assembly of small hydraulic & electric section valves in a row.

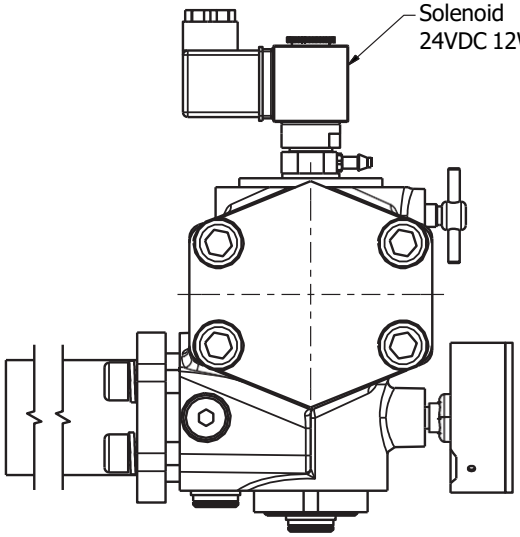
2. Components closing section valve housing:
- 990708-106 PLUG PLATE SMALL SECTION VALVE
- 990708-105 INLET ADAPTER KIT G1" SMALL SECTION VALVE are not inlcuded in section valve kit and have to be ordered separately.

-

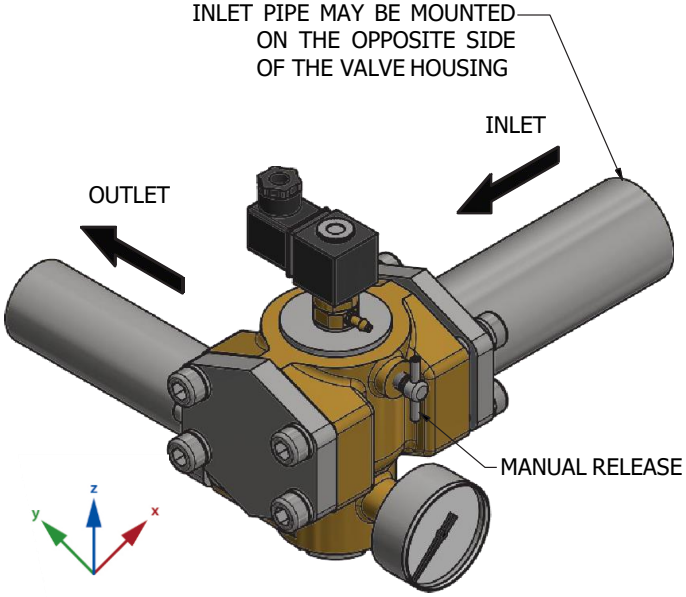
2.3 Small Section Valve Electric

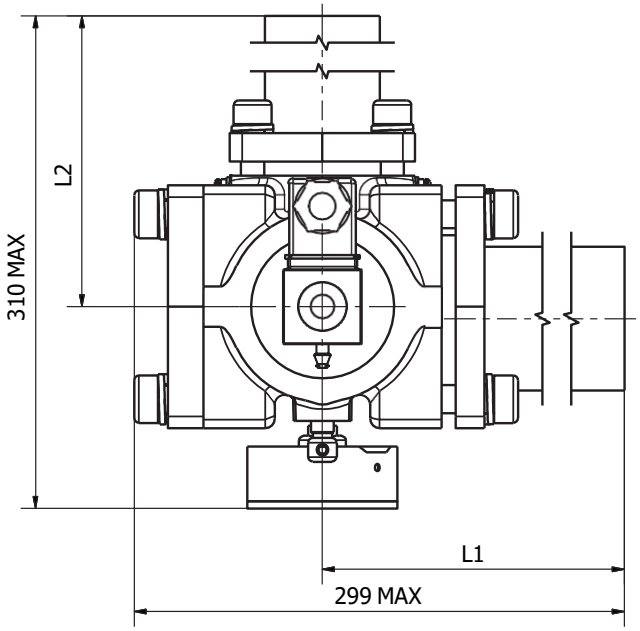
981227-301-QM

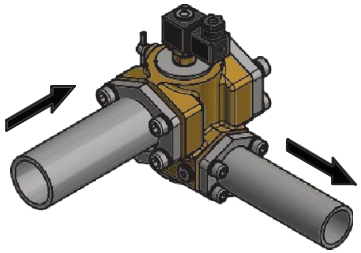




SECTION VALVE WITH INLET AND OUTLET CONNECTIONS

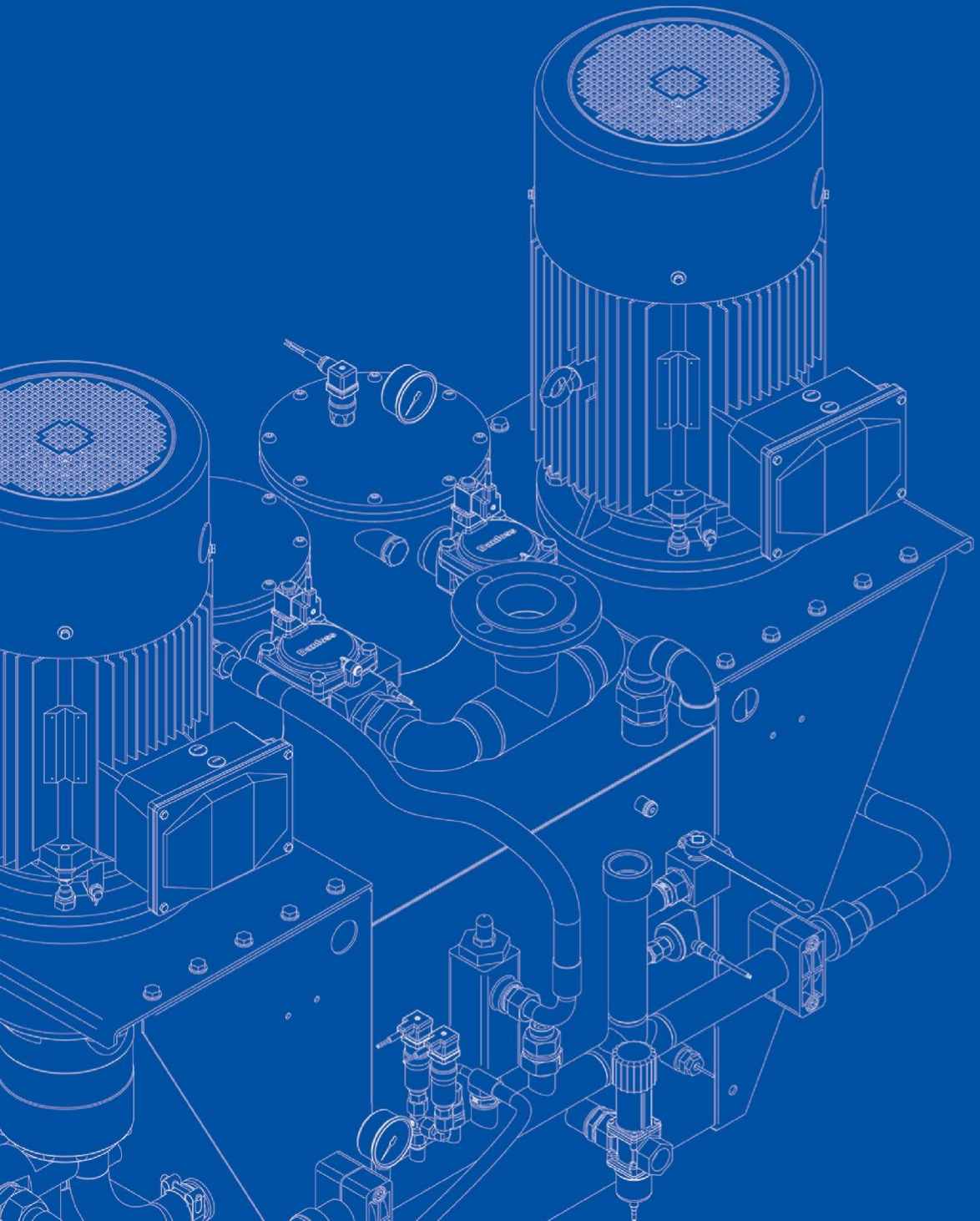






MAX WORKING PRESSURE 200 Bar
MIN PRESSURE 5 Bar
K = 220
Weight 10 kg

Part no.	Inlet [mm]	Outlet [mm]	L1 [mm]	L2 [mm]
20020626-301 I28XO28	Ø28	Ø28	200	185
20020626-301 I42XO28	Ø42	Ø28	200	185
20020626-301 I42XO42	Ø42	Ø42	200	205
20020626-301 I42XO48	Ø42	Ø48.3	200	225
20020626-301 I48XO28	Ø48.3	Ø28	200	185
20020626-301 I48XO42	Ø48.3	Ø42	200	205
20020626-301 I48XO48	Ø48.3	Ø48.3	200	225
20020626-301 I60XO28	Ø60.3	Ø28	220	185
20020626-301 I60XO42	Ø60.3	Ø42	220	205
20020626-301 I60XO48	Ø60.3	Ø48.3	220	225



3. HIGH PRESSURE PUMP UNITS

The pump unit has been sized to be capable of maintaining minimum flow corresponding to the simultaneous operation of spray nozzles in the hydraulically most demanding design areas. The pump unit contains one spare pump. The pumps operate automatically, starting in phases as required by the conditions of the fire. If pump number one is not working, the spare pump will start automatically.

Ultra Fog pump units utilise water-lubricated high-pressure pumps, which eliminates the risk of oil penetrating through the pump. A dry running safety function is built in to the pump unit, if the high-pressure pumps do not receive water from the suction inlets, the pumps will stop automatically. When suction water returns, the pump will start up automatically, this prevents damaging the pumps should the water supply fail. Under normal conditions, the high-pressure pumps do not require periodic replacements of seals or parts.

The high-pressure pump unit is equipped with a suction filter, which ensures the best and most reliable filtration on the suction side, thereby preventing internal damage to the high pressure pumps.

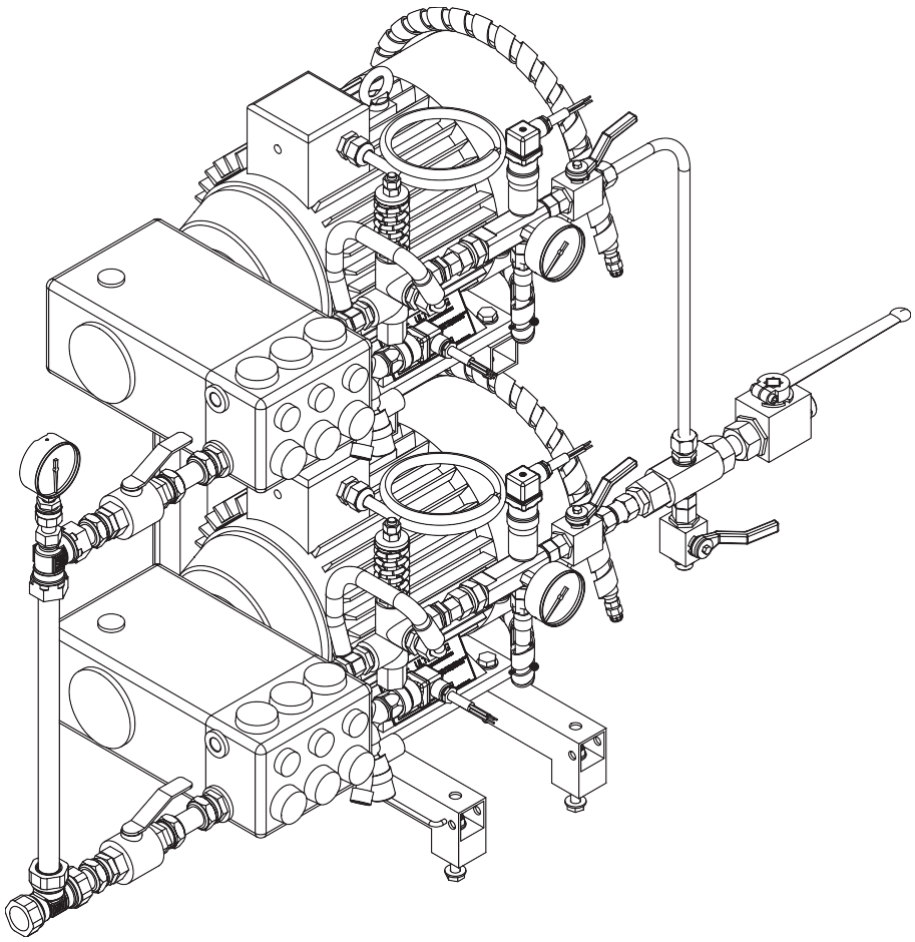
3.1 MPU Pump Units

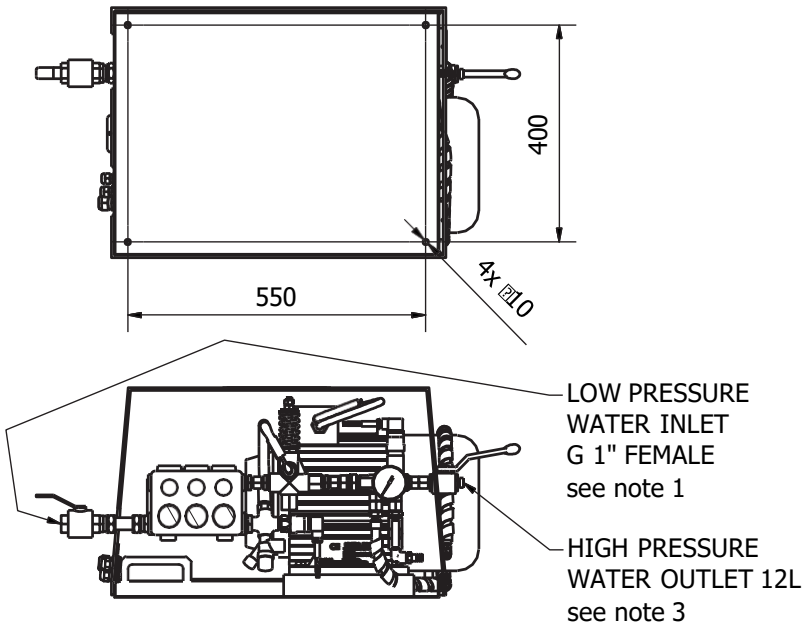
Ultra Fog P35 pump unit is a frequency controlled high pressure pump which works with two different pressures - pilot pressure and working pressure. The pilot pressure is the standby pressure in the system and it is normally between 15 to 25 bar. The working pressure is the fire extinguishing pressure and it is normally 110 bar at the pump unit.

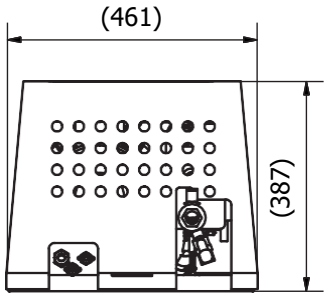
For 100 bar system up to 50 litres/min. equiped with electrically driven high pressure piston pump with frequency controlled rpm on motor with adjustable system pressure for small systems. Easy to install, access, operate and maintain. Incorporates a 50 micron strainer, safety valve, pressure gauge, pressure transmitter and test outlet under the same hood.

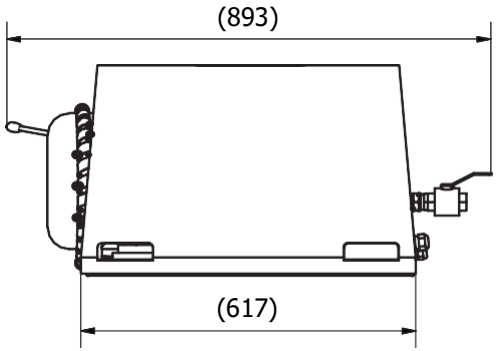
Technical Data:

– Outlet pressure: 100 – 130 bar
– Inlet water flow: 56 to 155 litres/min at minimum 2 bar
– Flow: 35 – 150 litres/min
– Power consumption: 11, 22 or 33kw
– Voltage supply: 3 x 400 VAC 50Hz (3 x 220 VAC 50Hz)









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3.1.1 Pump Unit P35

20080102-201-QM

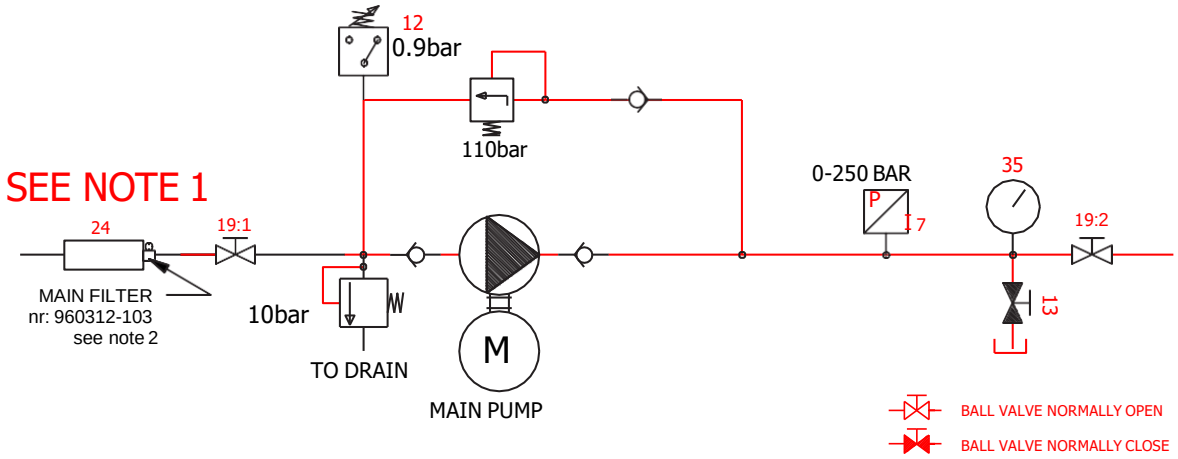


TABLE 1

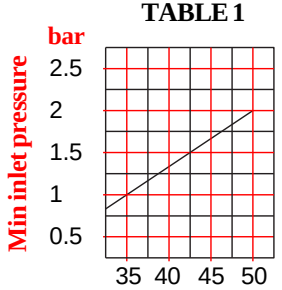
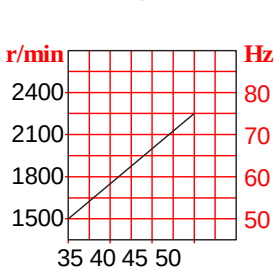


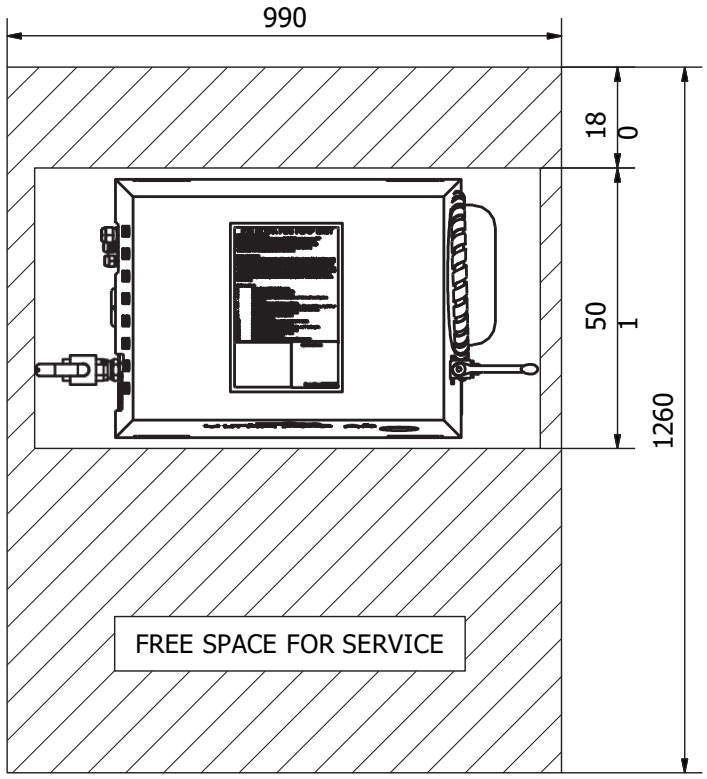
TABLE 2



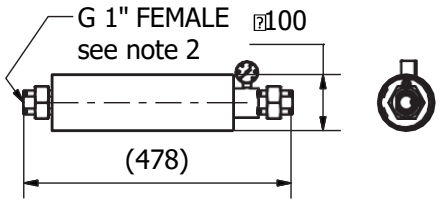
Water flow from Pump unit (L/min)

DESCRIPTION

7 PRESSURE TRANSMITTER (4-20mA)
12 PRESSURE SWITCH (NC)
13 TEST VALVE
19 BALL VALVE
24 FILTER
35 PRESSURE GAUGE



960312-103 LOW PRESSURE FILTER
(1:10)



NOTES:

Weight: ~95kg.

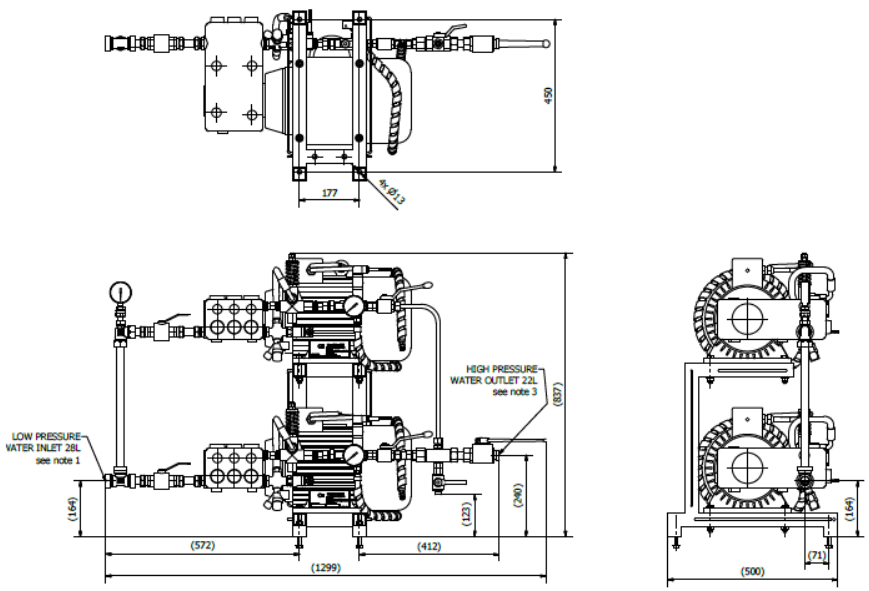
1.Water supply, see Table 1. Max inlet pressure 10 bar; inlet pipe material: Cu or stainless steel. Water quality: clean fresh water, max 50ppm NaCl.

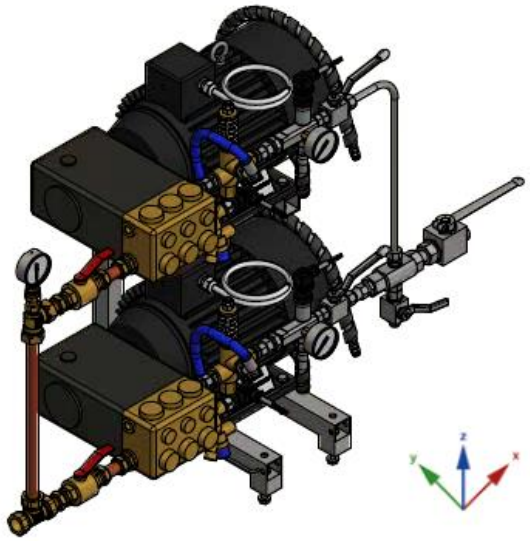
2.Low Pressure Filter 960312-103 has to be installed on inlet pipe close to the pump unit (inlet & outlet ports G1" female).

3. High pressure water outlet - thread M18x1,5 (12LISO 8434-1) - should be connected to the sprinkler system.

4. Water flow out from the pump unit, see Table 2.

5. Test valve thread M18x1,5 (12LISO 8434-1).





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3.1.2 Pump Unit
MPU 235

20121122-201-QM

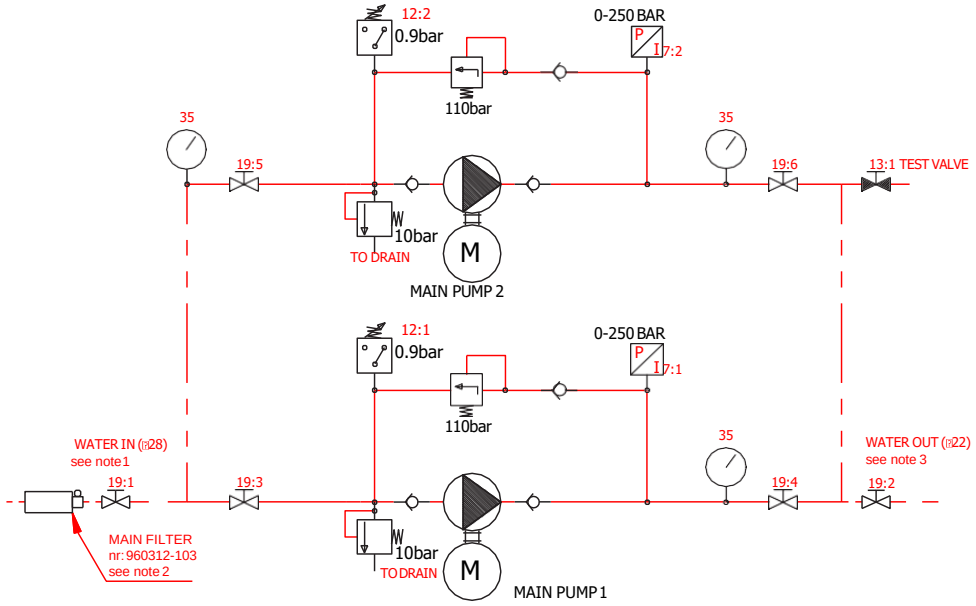
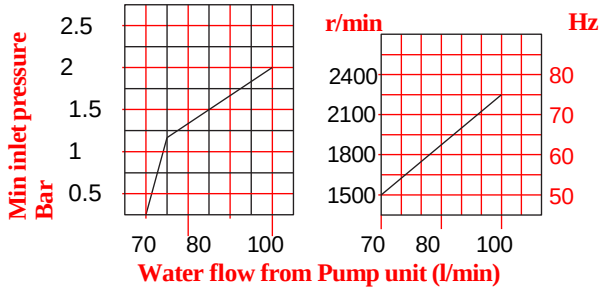


TABLE 1

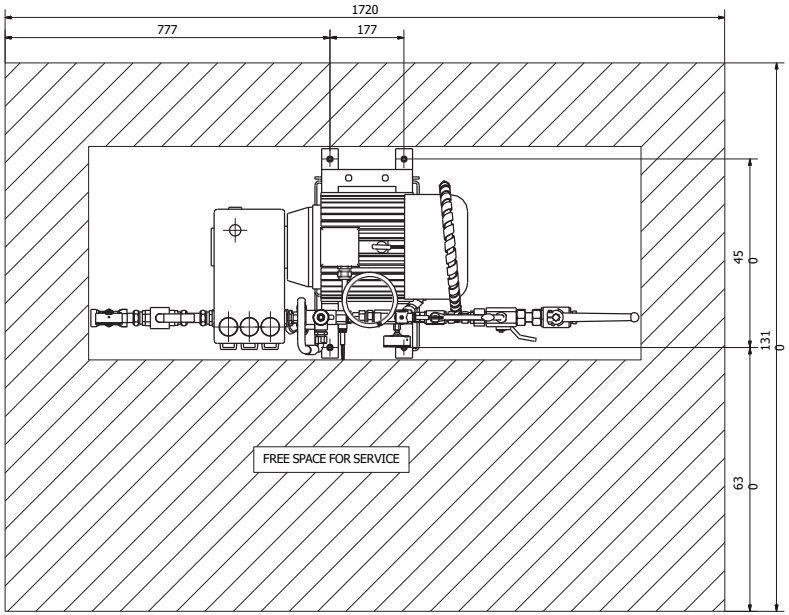


BALL VALVE NORMALLY OPEN

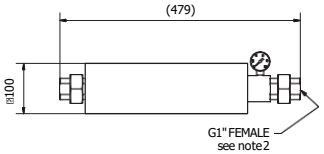
BALL VALVE NORMALLY CLOSE

DESCRIPTION

7 PRESSURE TRANSMITTER (4-20mA)
12 PRESSURE SWITCH (NC)
13 TEST VALVE
19 BALL VALVE
24 FILTER
35 PRESSURE GAUGE



LOW PRESSURE FILTER (1 : 5)



NOTES:

Weight: ~200kg.

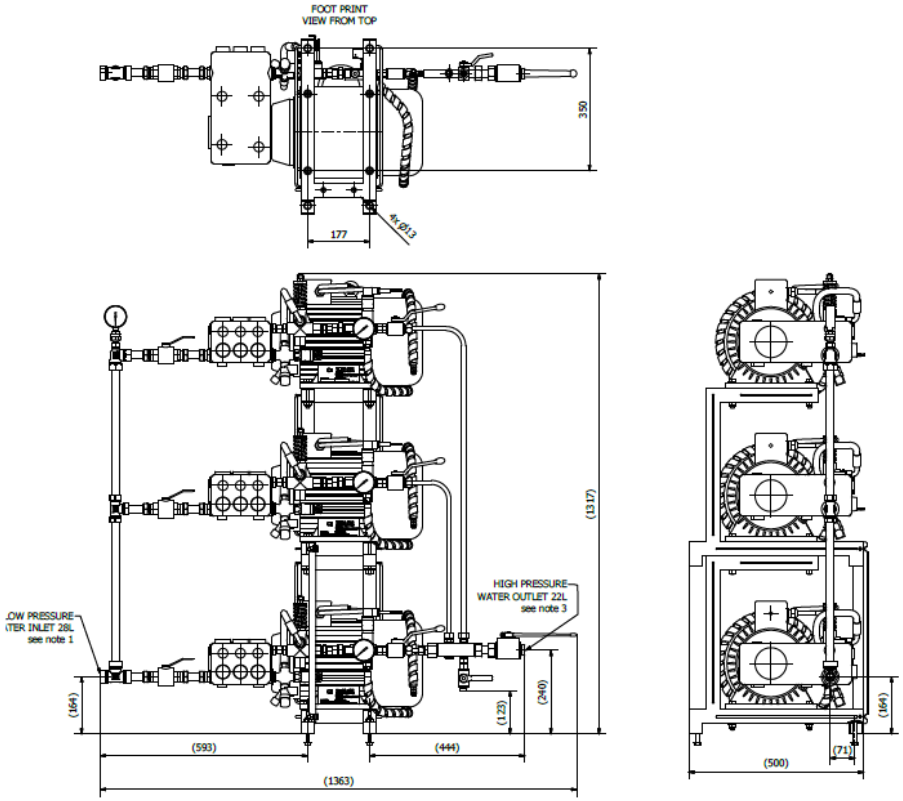
1.Water supply, pressure 2 to 10 bar, min pressure: 2 bar at 100 l/min; min pipe diameter Ø24 mm; connecting with thread M36x2 (28L ISO 8434-1); material: Cu or stainless steel. Water quality: clean fresh water, max 50ppm NaCl.

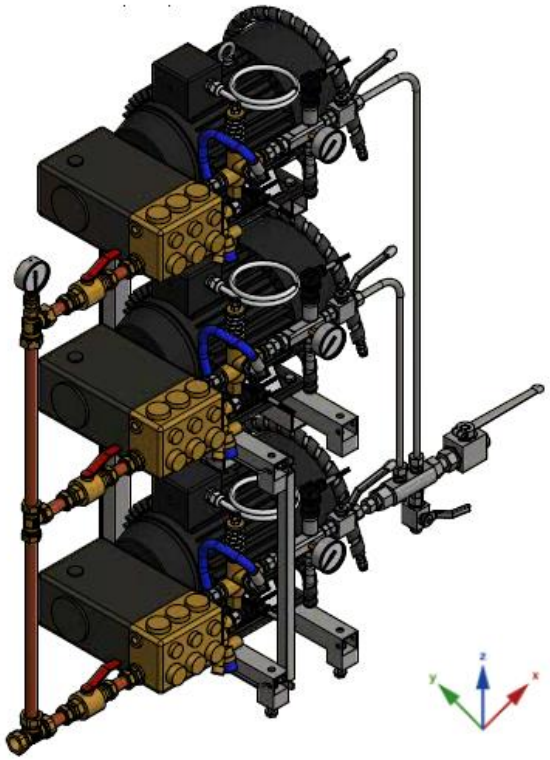
2.Filter has to be installed on inlet pipe close to the pump unit (inlet & outlet ports G1" female).

3. High pressure water outlet - thread M30x2 (22L ISO 8434-1) - should be connected to the sprinkler system.

4. Water flow out from the pump unit, see table.

5. Test valve thread M18x1,5 (12LISO 8434-1).





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3.1.3 Pump Unit
MPU 335

20121122-301-QM

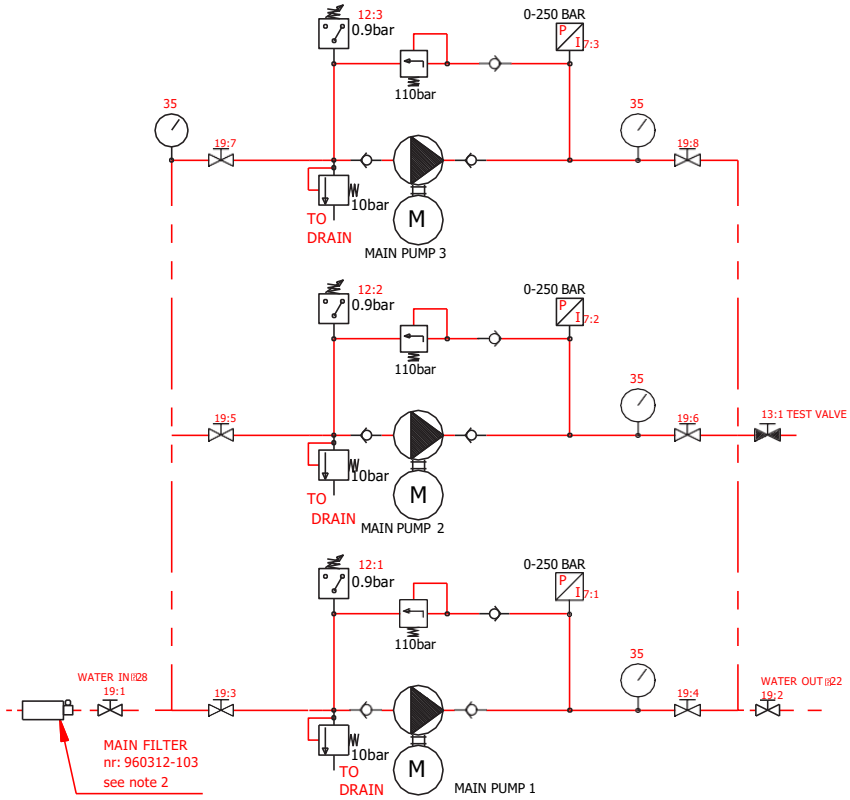
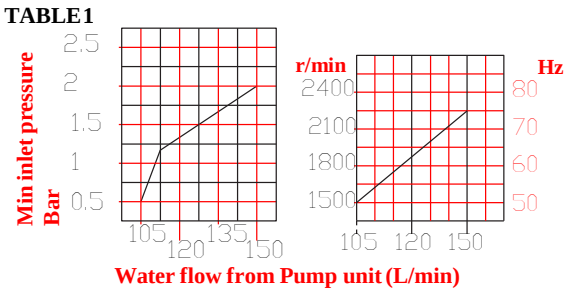


TABLE1

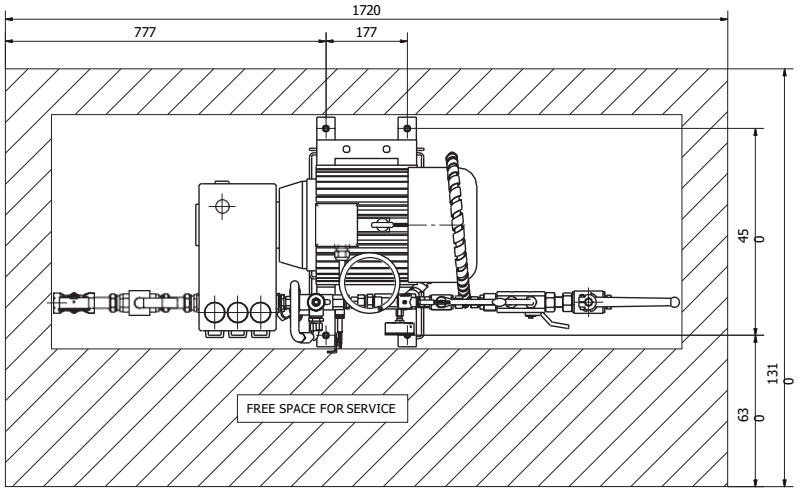


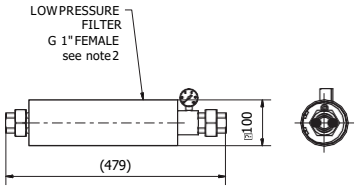
BALL VALVE NORMALLY OPEN

BALL VALVE NORMALLY CLOSE

DESCRIPTION

7 PRESSURE TRANSMITTER (4-20mA)
12 PRESSURE SWITCH (NC)
13 TEST VALVE
19 BALL VALVE
24 FILTER
35 PRESSURE GAUGE





NOTES:

Weight: 270kg.

1.Water supply, pressure 2 to 10 bar, min pressure: 2 bar at 100 l/min; min pipe diameter Ø24 mm; connecting with thread M36x2 (28L ISO 8434-1); material: Cu or stainless steel. Water quality: clean fresh water, max 50ppm NaCl.

2.Filter has to be installed on inlet pipe close to the pump unit (inlet & outlet ports G1" female).

3. High pressure water outlet - thread M30x2 (22L ISO 8434-1) - should be connected to the sprinkler system.

4. Water flow out from the pump unit, see table.

5. Test valve thread M18x1,5 (12L ISO 8434-1).

3.2 Micro Pump Units

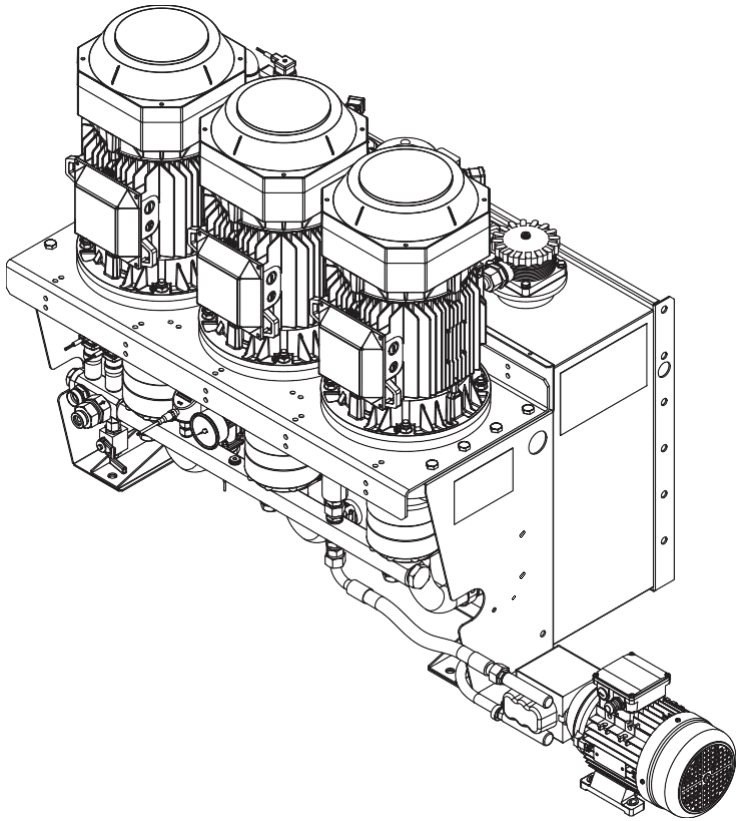
Compact designed pump station with 1-3 high pressure pumps with air or electrical driven pilot pump. Pump unit is equipped withtwo filters. Includes temperature safety drainvalve, pressure regulator and test valve on manifold. Extended low rate with optional frequency controlled rpm.

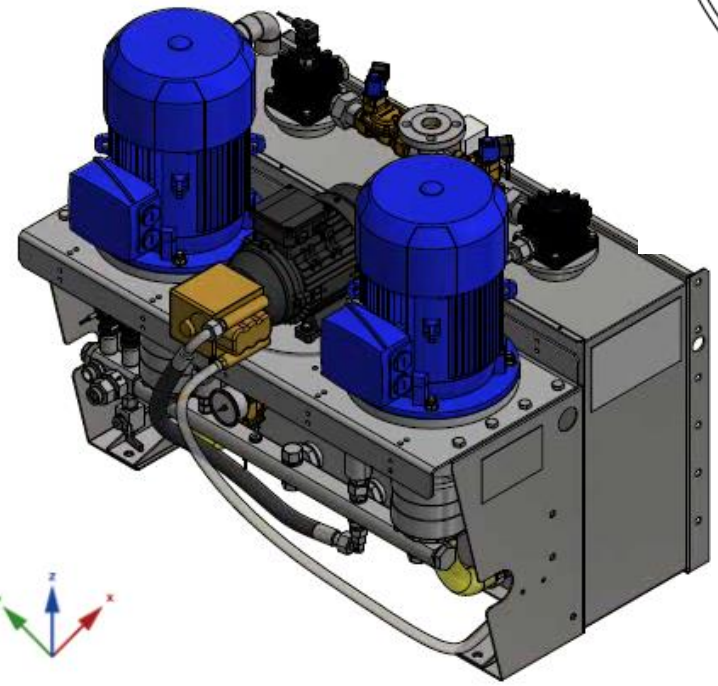
Technical Data:

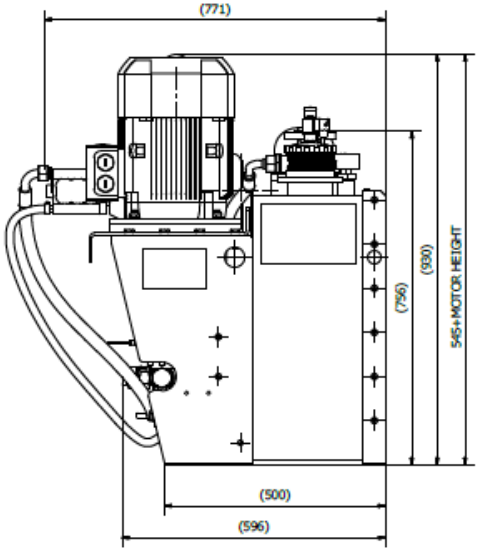
–Outlet pressure: 100 – 146 bar
–Flow at 1500 rpm: 48 litres/min/pump
–Flow at 2200 rpm (optional): 70 litres/min/pump (frequency controlled)
– Power consumption: 11 to 17,7 kw/pump/standard
– Power Supply: 230 V AC 50/60 Hz or 3x 400/690 V AC 50/60Hz.
–Control system with PLC and output/input for section valves, fire alarm system, feeder pumps etc

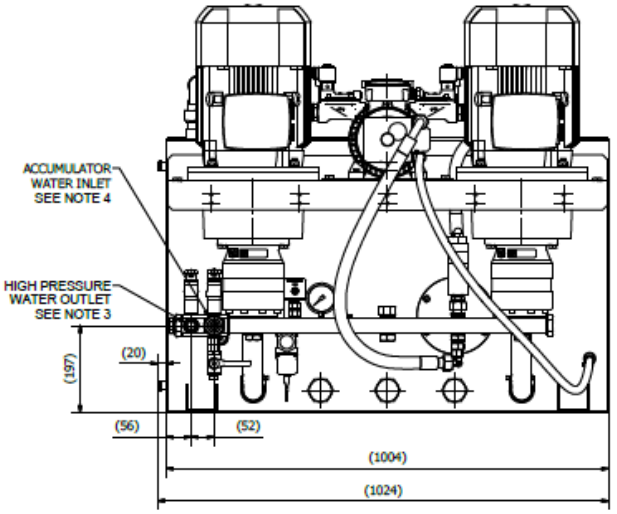
Note:

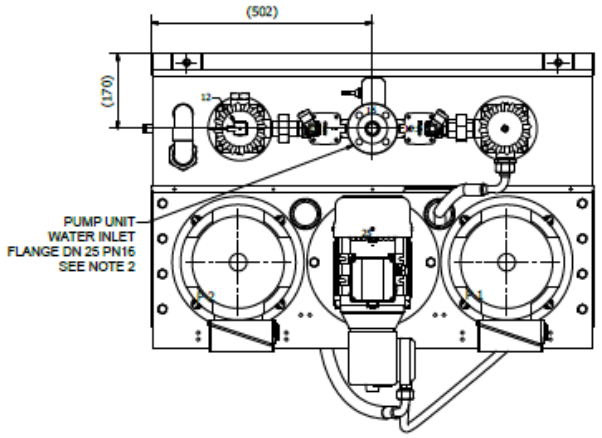
Specified cost for all types of Mirco Pump Unit consider standard Hoyer supplier motors. Other motor configurations available on request. For special brand or motor the price have to be confirmed.











*Specified cost for all types of Mirco Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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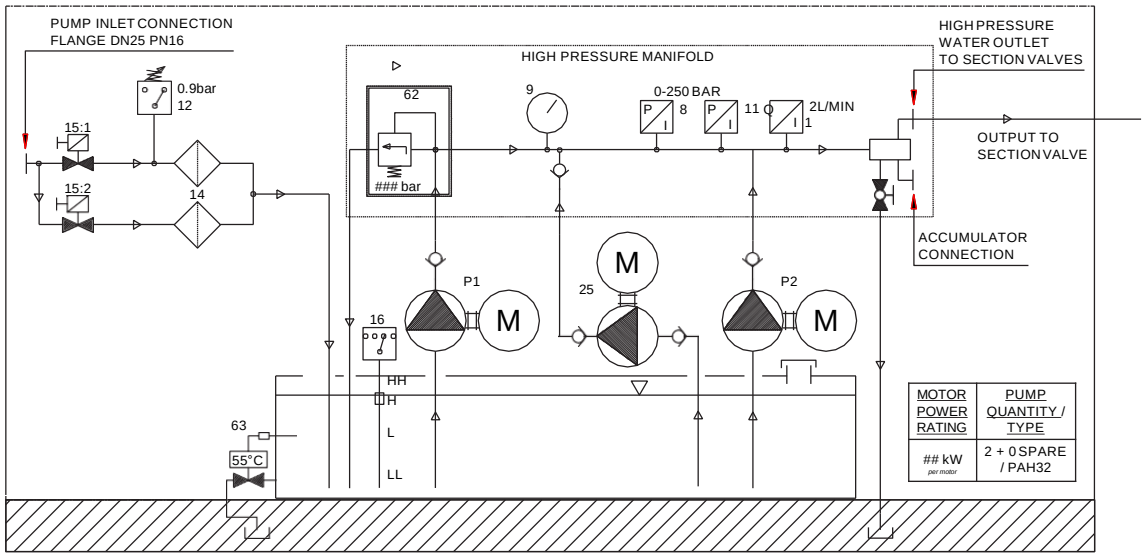
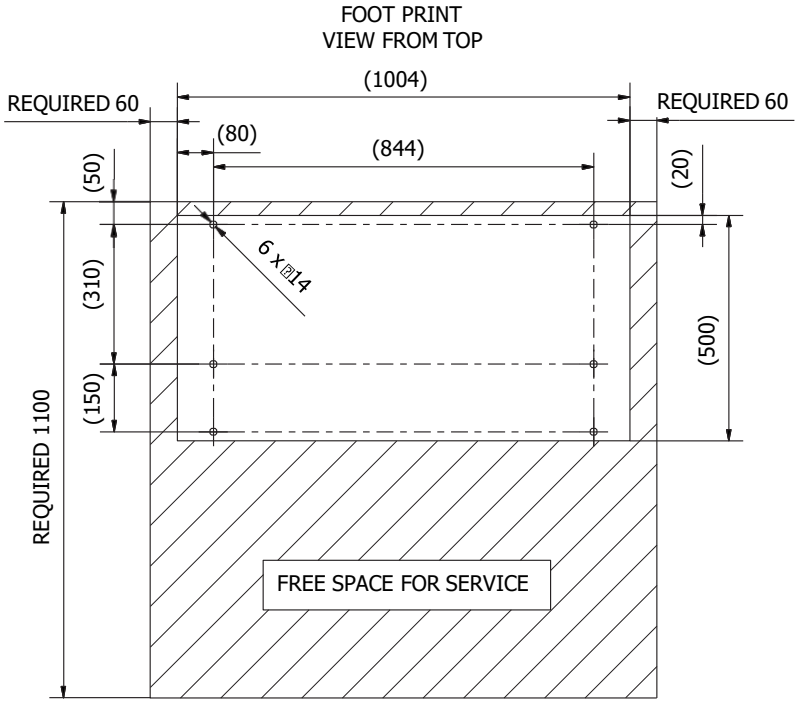
3.2.1 Micro Pump Unit 2 X Pumps

20061118-20X-QM



DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE



NOTES:

Total weight: dry: ~350kg / wet: ~500kg
(depends on motor type).

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

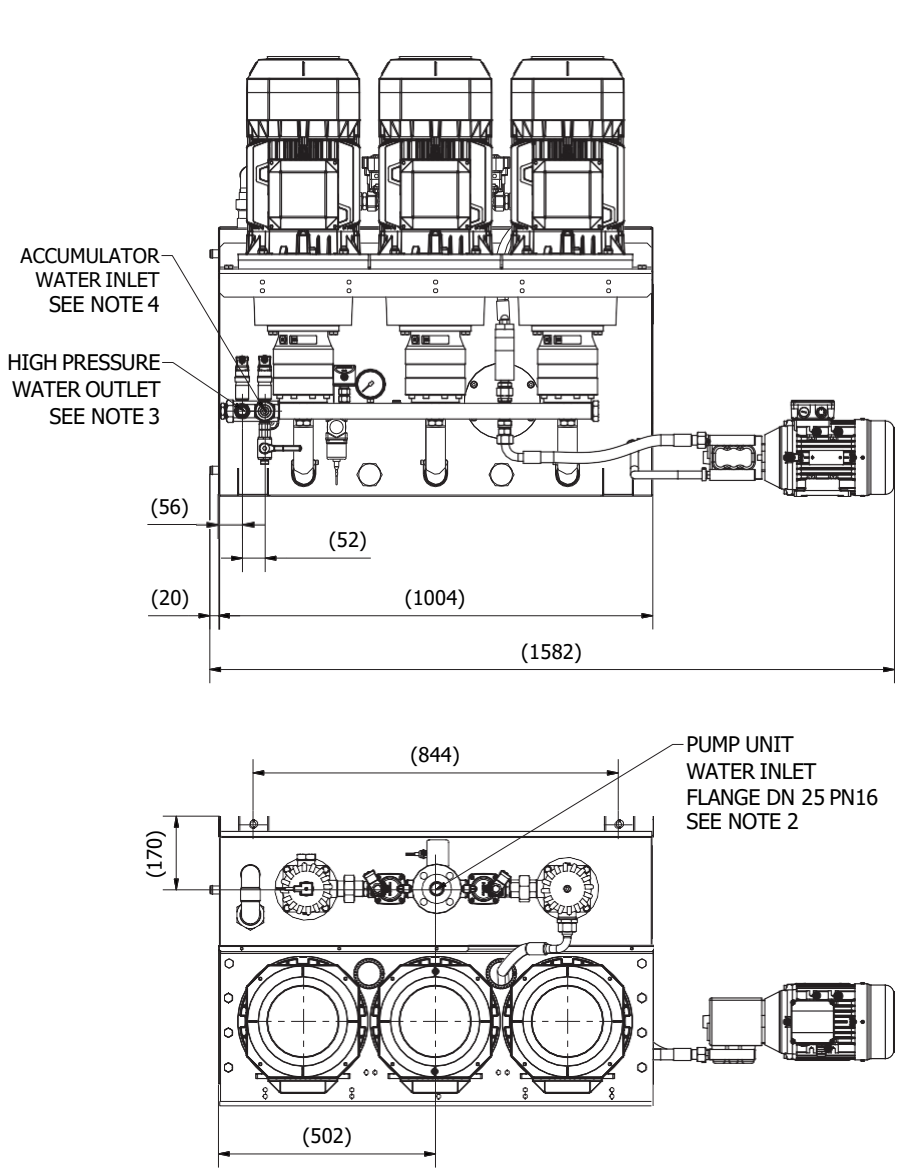
2.Pipe for inlet water connecting with flange DN25 PN16 must be made of a non-corrosive material.

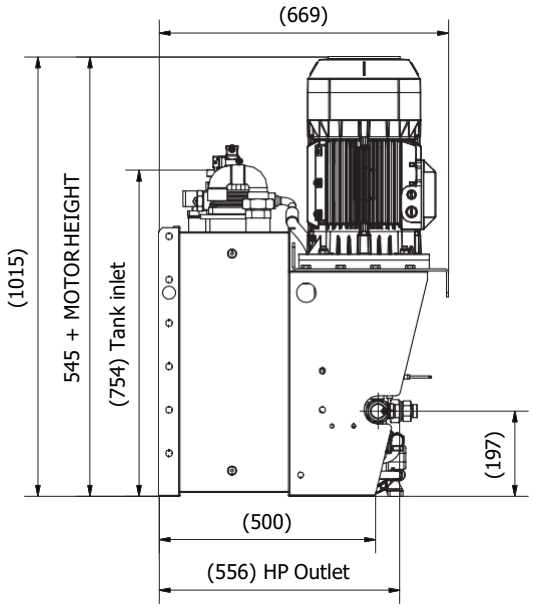
3. High pressure water outlet - thread M30x2 (22L ISO 8434-1) - should be connected to the sprinkler system. Standard pipe Ø22mm.

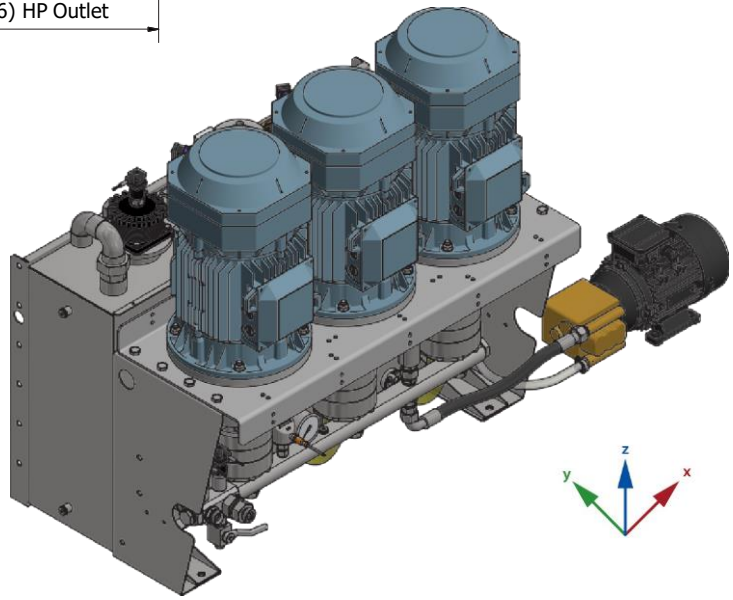
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

6.Min. 500mm clearance is required above the pump unit for service purpose.







*Specified cost for all types of Mirco Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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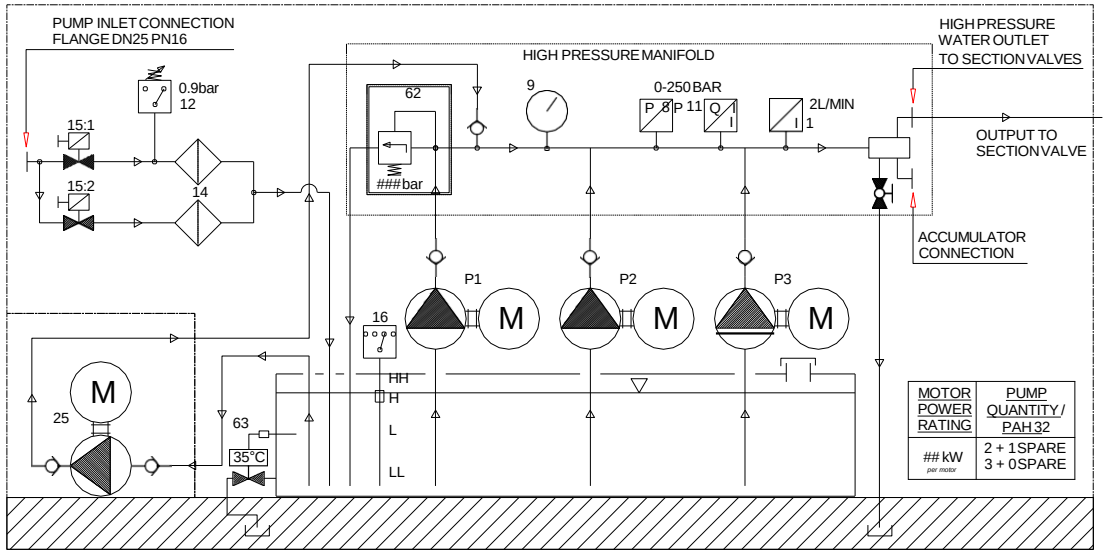
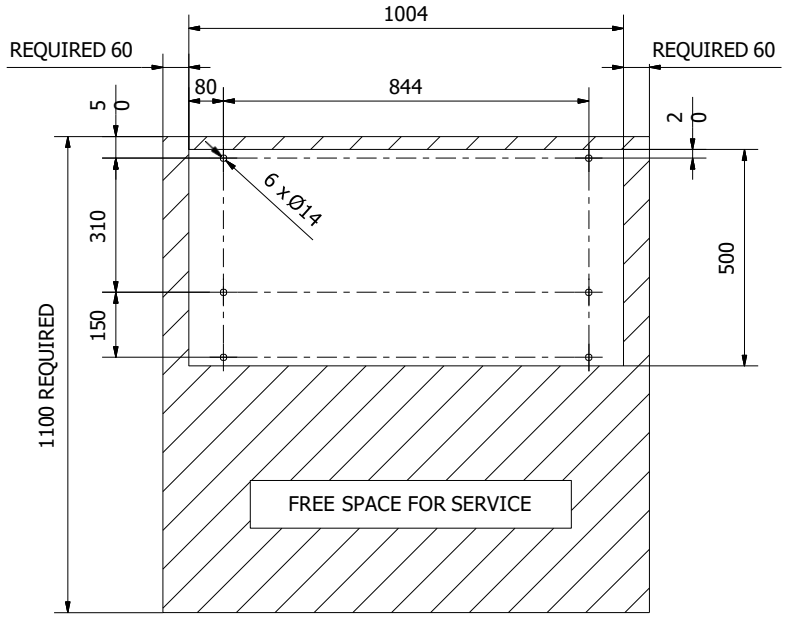
3.2.2 Micro Pump Unit X 3 Pumps

20061118-30X-QM



DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE



NOTES:

Total weight: dry: ~430kg / wet: ~580kg
(depends on motor type).

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN25 PN16 must be made of a non-corrosive material.

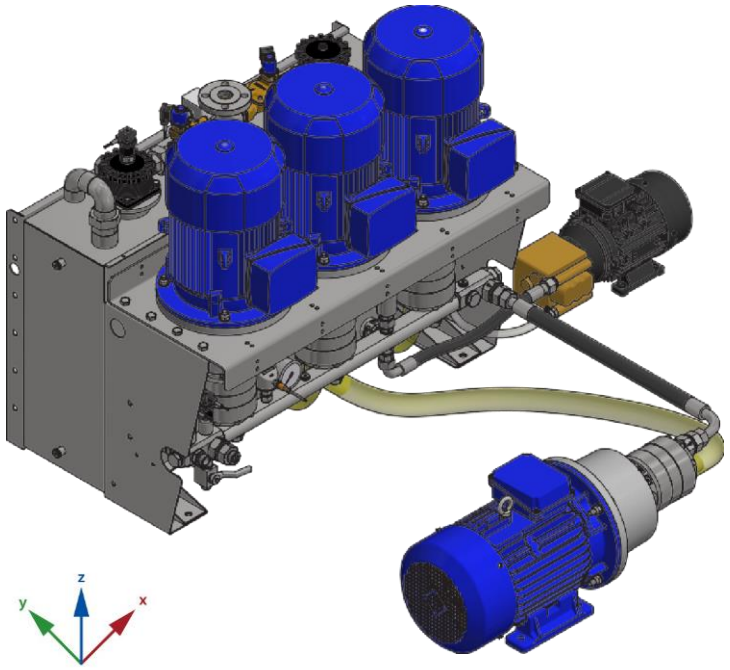
3. High pressure water outlet - thread M30x2 (22L ISO 8434-1) - should be connected to the sprinkler system. Standard pipe 22mm.

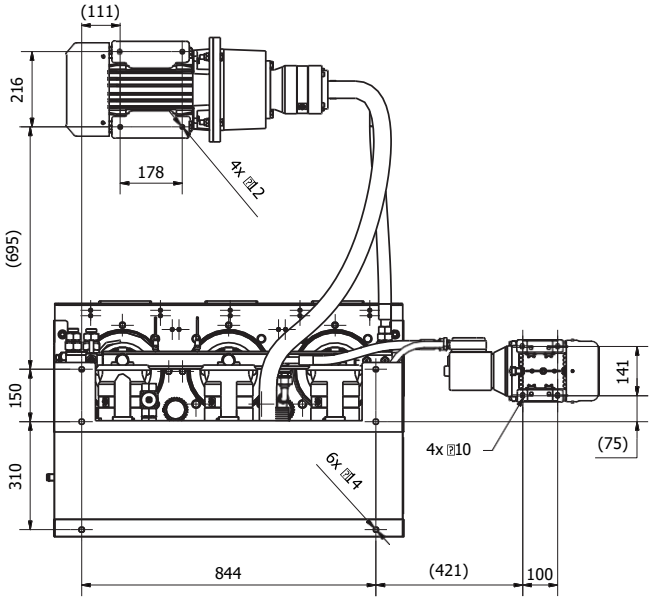
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

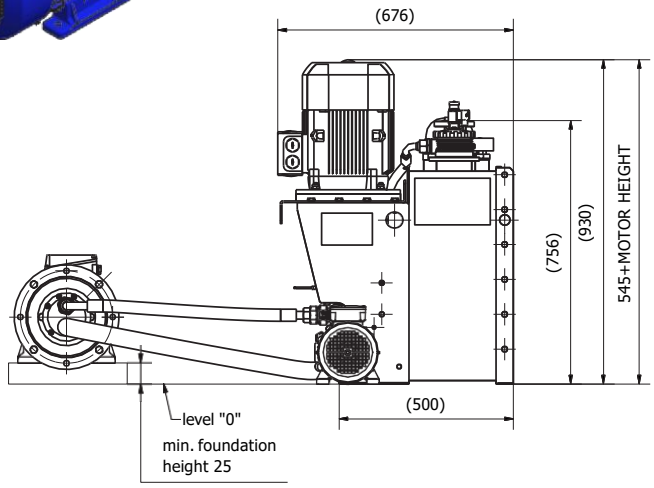
5.Thermostatic valve and test valve n12 should be connected with drain point. Standard pipe n12mm.

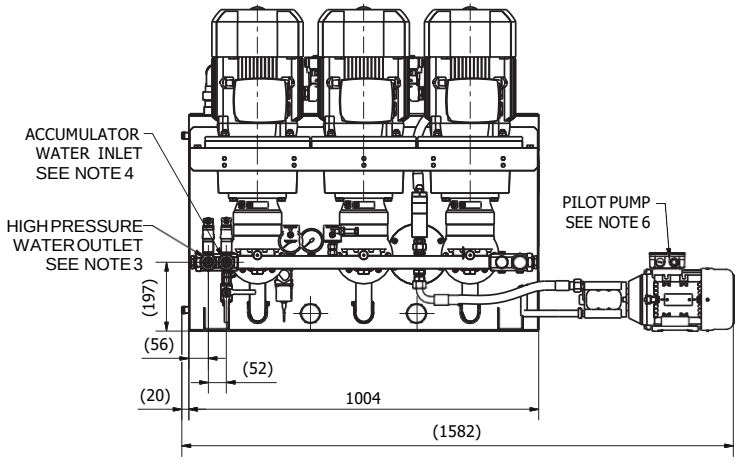
6.To see the pilot pump installation go to the drawing 20110309-201.

7.Min. 500mm clearance is required above the pump unit for service purpose.









*Specified cost for all types of Mirco Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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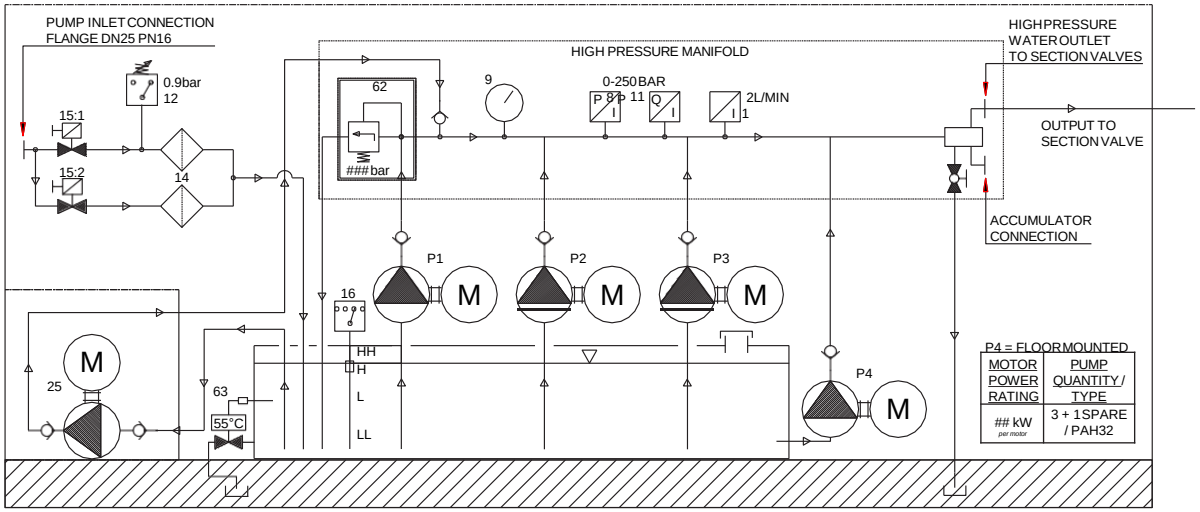
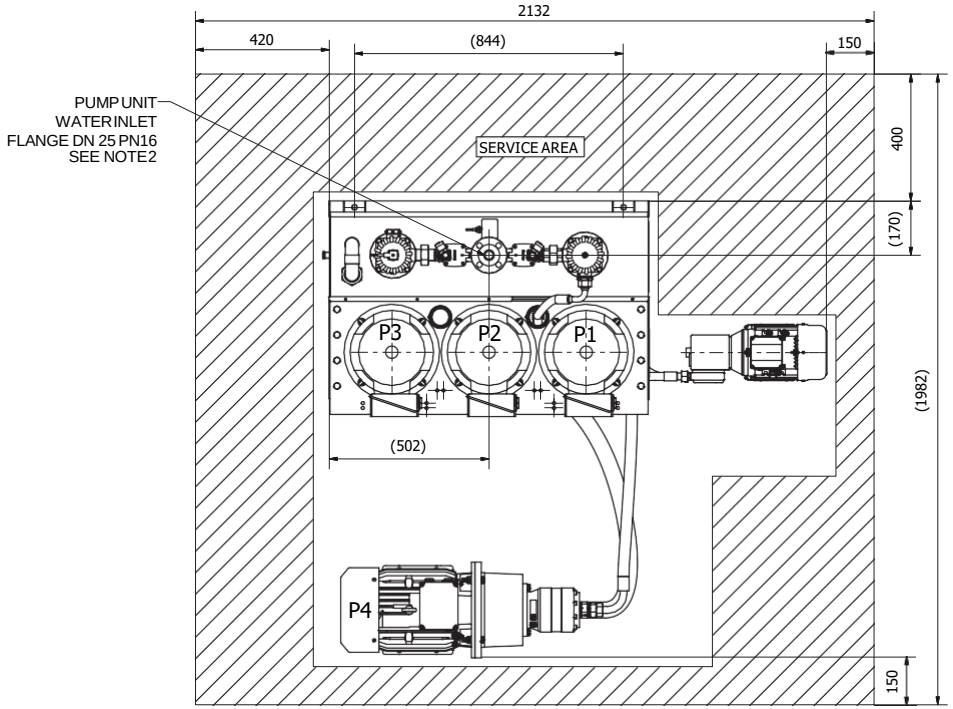
3.2.3 Micro Pump Unit X 4 Pumps

20061118-40X-QM





DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE

NOTES:

3 pumps operating + 1 spare pump.
Total weight: dry: ~450kg / wet: ~600kg
(depends on motor type).

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN25 PN16 must be made of a non-corrosive material.

3. High pressure water outlet - thread M30x2 (22L ISO 8434-1) - should be connected to the sprinkler system. Standard pipe Ø22mm.

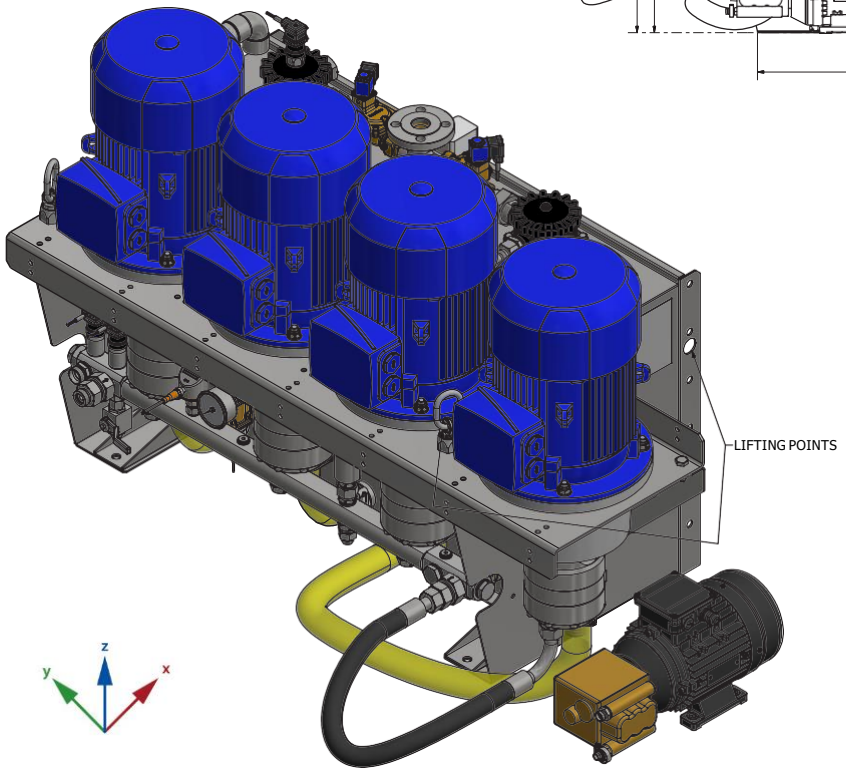
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

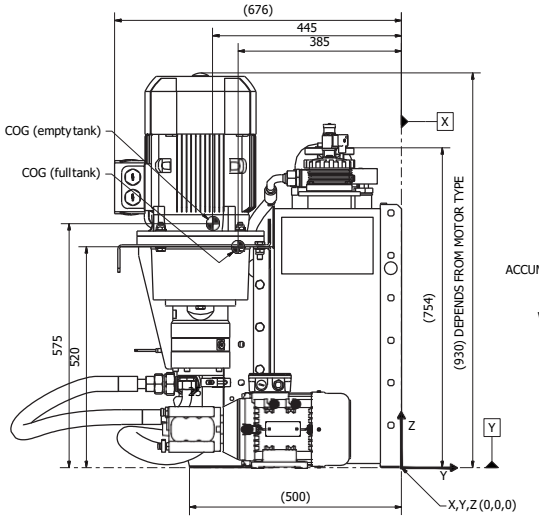
5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

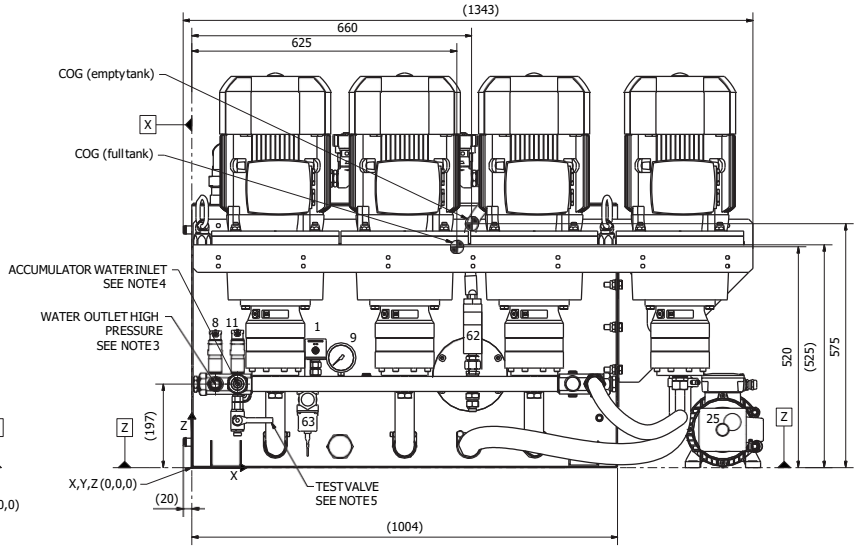
6.To see the pilot pump installation go to the drawing 20110309-201.

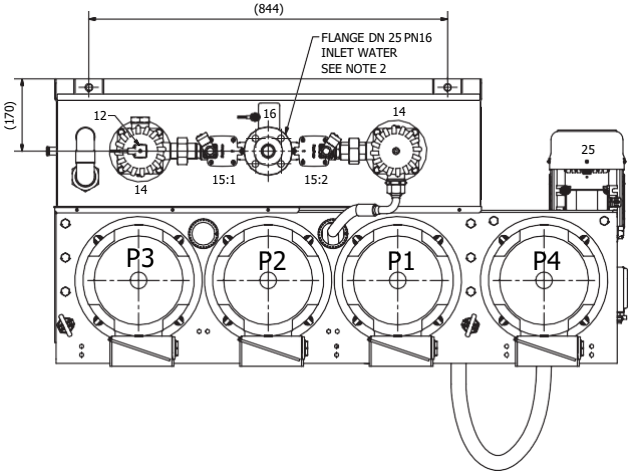
7.Min. 500mm clearance is required above the pump unit for service purpose.

8.Motor configuration with B35 mounting available under another UF no.









*Specified cost for all types of Mirco Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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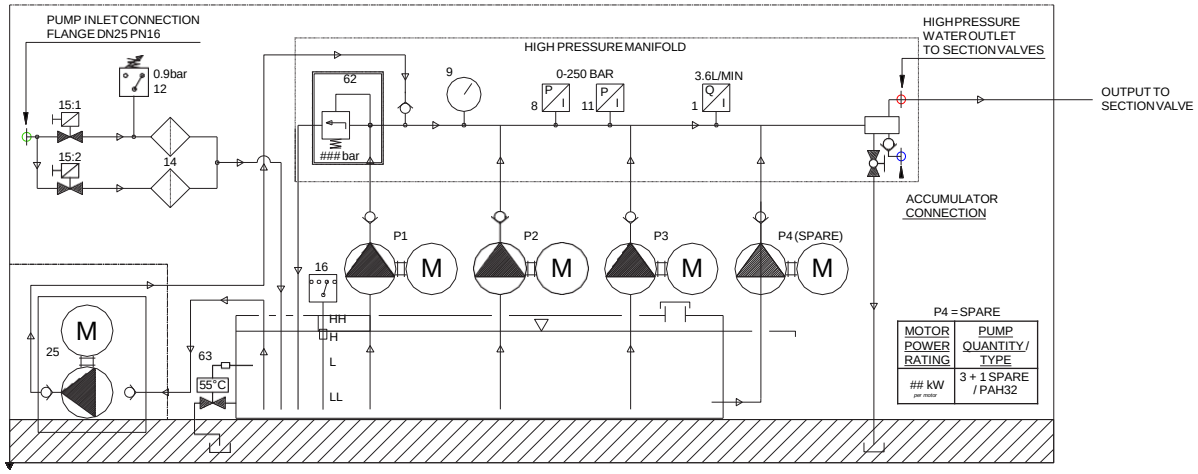
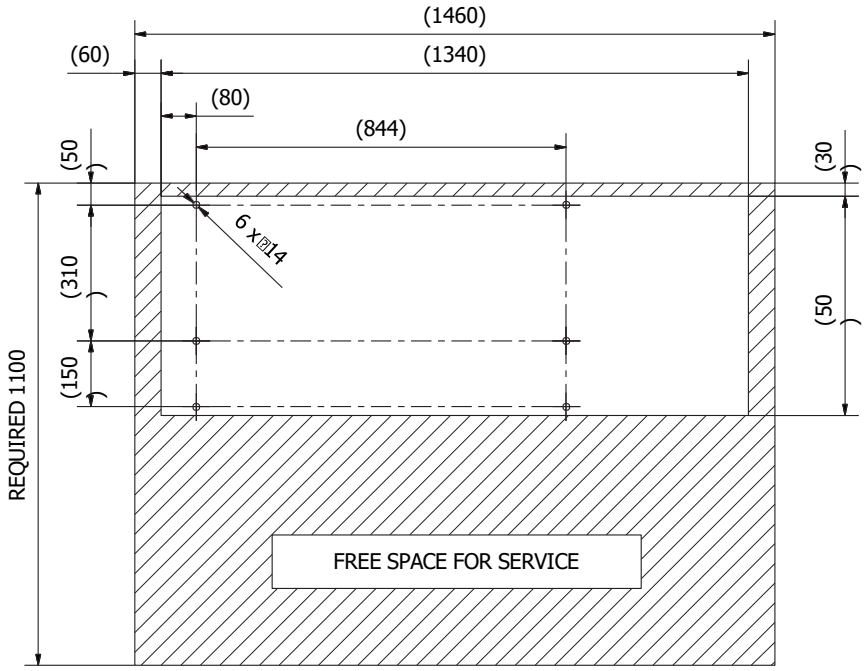
3.2.4 Micro Pump Unit X 4 On Tank (3 + 1 Spare)

20061118-41X-QM





DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE

COG	DRY	WET
X	660mm	625mm
Y	-445mm	-385mm
Z	575mm	520mm
Mass	~550kg	~700kg

NOTES:

Total weight: dry: ~550kg / wet: ~700kg
(depends on motor type).

1.Pump unit room must have a minimum air ventilation flow of 90 m3/h for cooling the electrical motors.

2.Pipe for inlet water connecting with flange DN25 PN16 must be made of a non-corrosive material.

3. High pressure water outlet - thread M30x2 (22L ISO 8434-1) - should be connected to the sprinkler system. Standard pipe Ø22mm.

4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation p rotection.

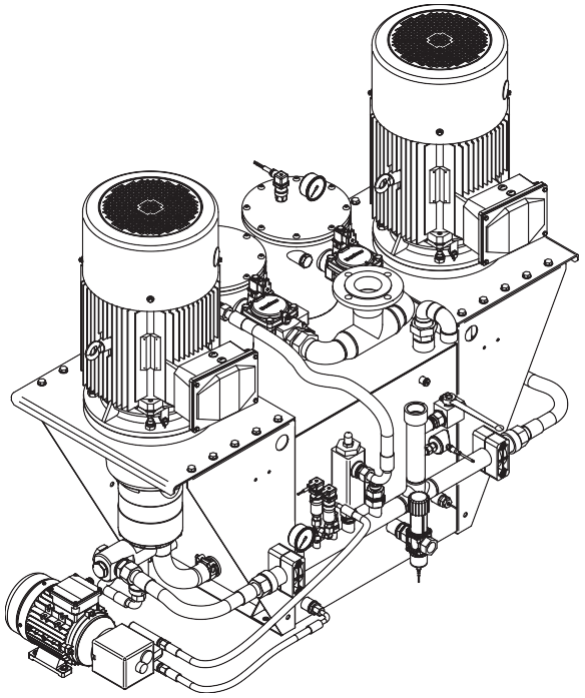
5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

6.To see the pilot pump installation go to the drawing 20110309-201.

7.Min. 500mm clearance is required above the pump unit for service purpose.

3.3 Master Pump Units

Flexible designed pump station with 1 – 4 internal buffer tanks to support the high pressure pumps. Pump unit can be equipped with 2 – 8 high pressure pumps normally with one spare. Master unit includes an electric or air driven pilot pump. Pump unit is equipped with two filters, a temperature safety drain valve, pressure regulator and test valve on manifold.

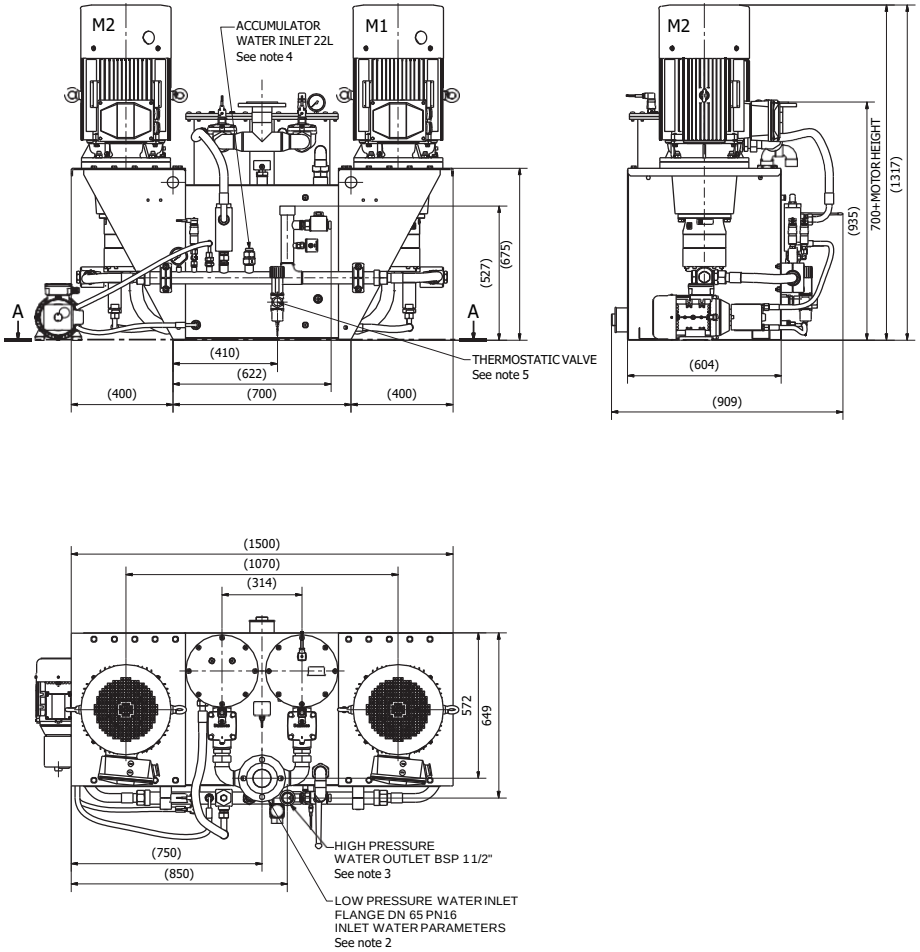


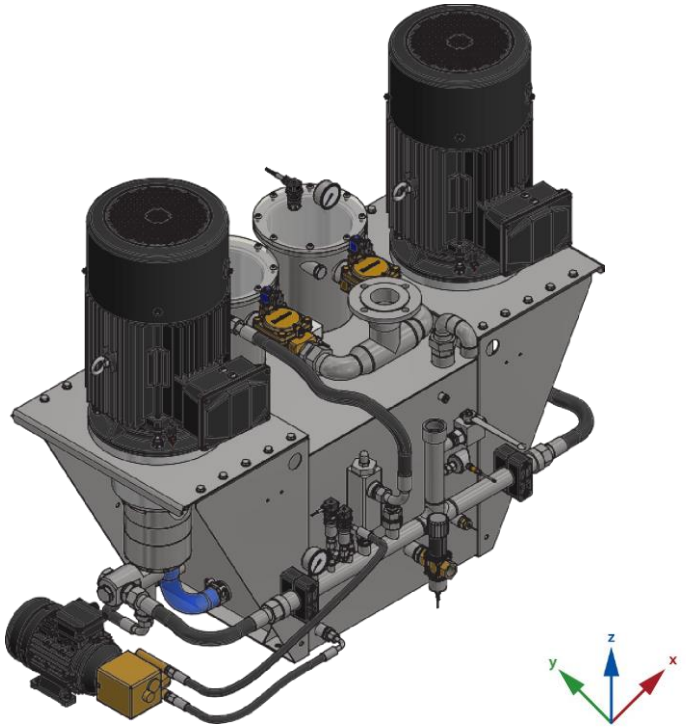
Technical Data:

–Outlet pressure: 100 – 146 bar
–Flow range: 91 – 141 litres/min/high pressure pump
–Power consumption: 22 – 39 kw/high pressure pump
– Power supply: 3x 400/ 440/690 V AC 50/60 Hz
–Control system with PLC and output/input for section valves, fire alarm system, power supply for feeder pumps etc
–External connections for alarm and control cabinets and operating panels through serial or TCP/IP communication

Note:

Specified cost for all types of Mirco Pump Unit consider standard Hoyer supplier motors. Other motor configurations available on request. For special brand or motor the price have to be confirmed.



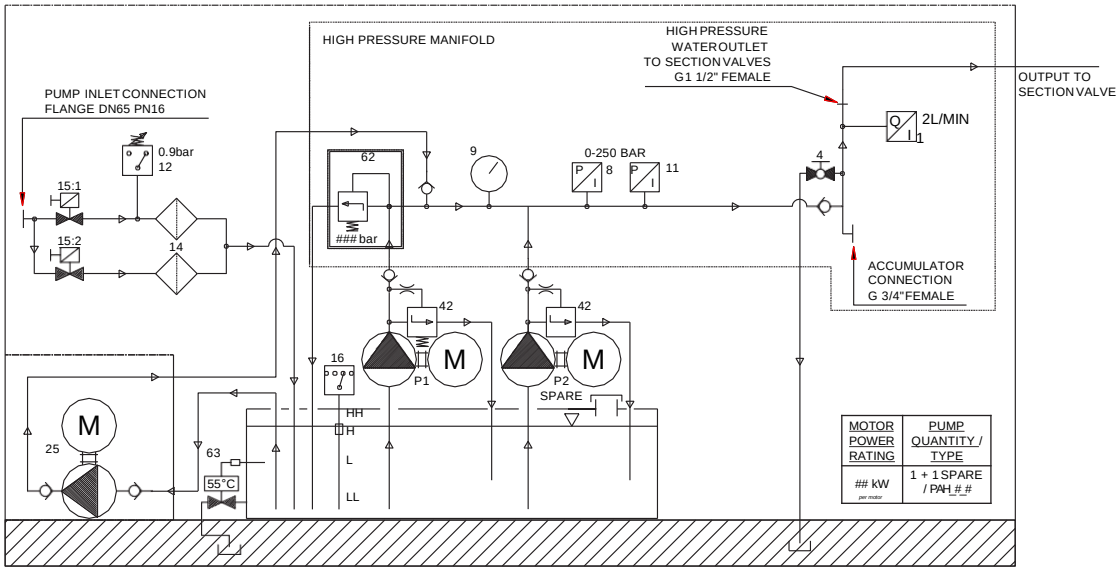


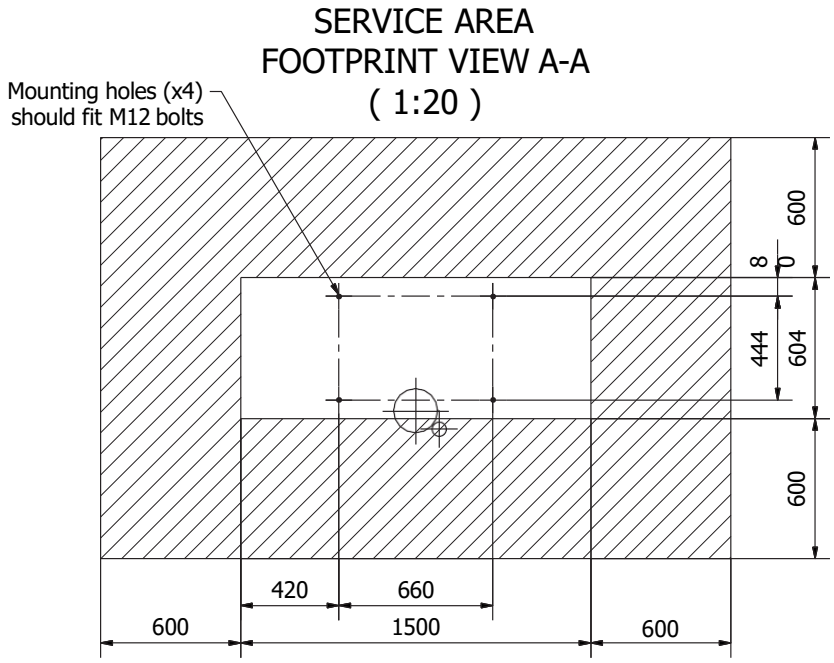
-

3.3.1 Master Pump Unit x 2 Pumps

20170909-20X-QM

*Specified cost for all types of Master Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.





DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
42 UNLOAD VALVE
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE

NOTES:

Weight:
- Dry: 640kg + approx. 200kg (depend on motor type)
- Wet: 870kg + approx. 200kg (depend on motor type)

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN65 PN16 must be made of a non-corrosive material. Inlet water parameters: min. positive pressure (0.1 bar), flow required acc. calculations.

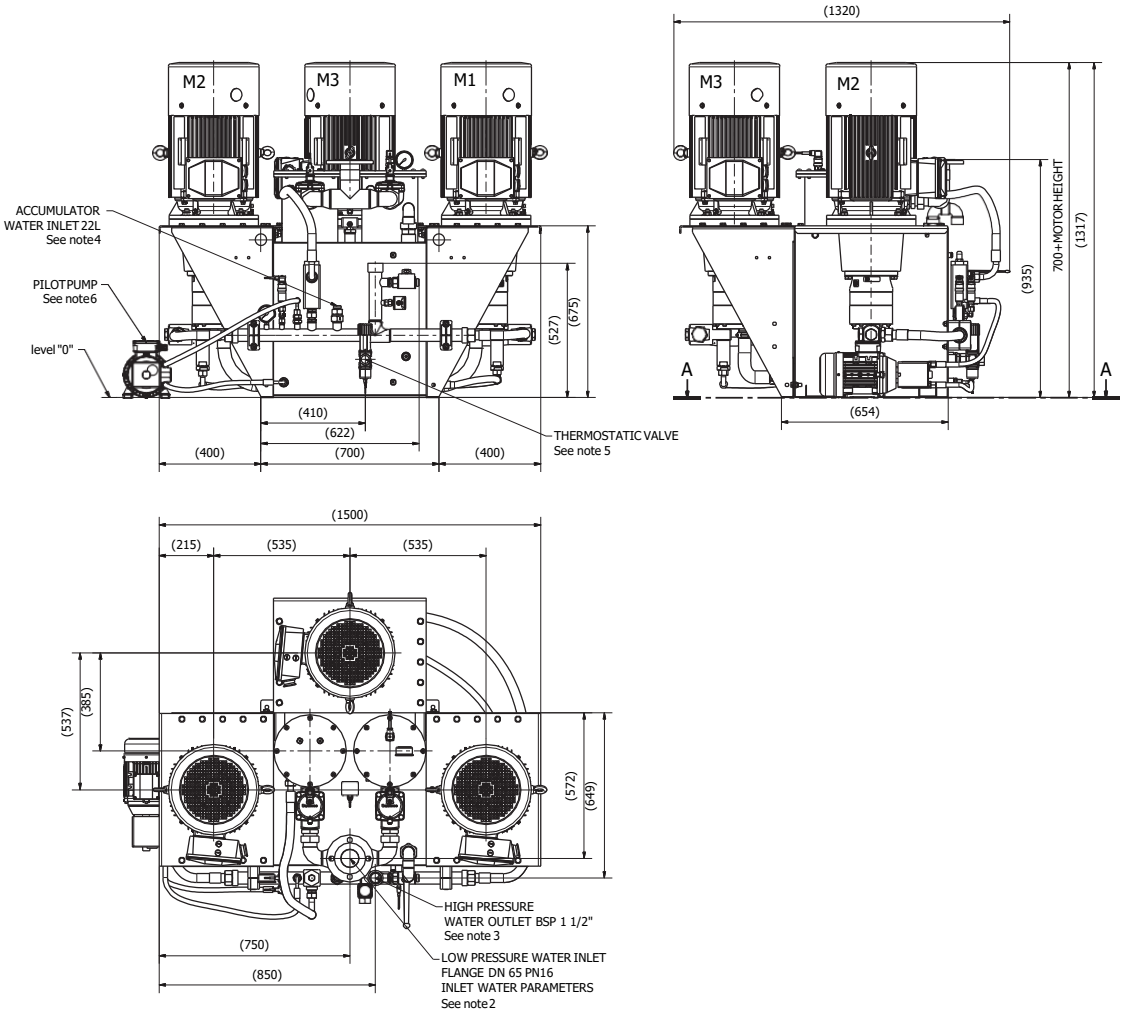
3.High pressure water outlet - female BSP 1 1/2" - should be connected to the sprinkler system.

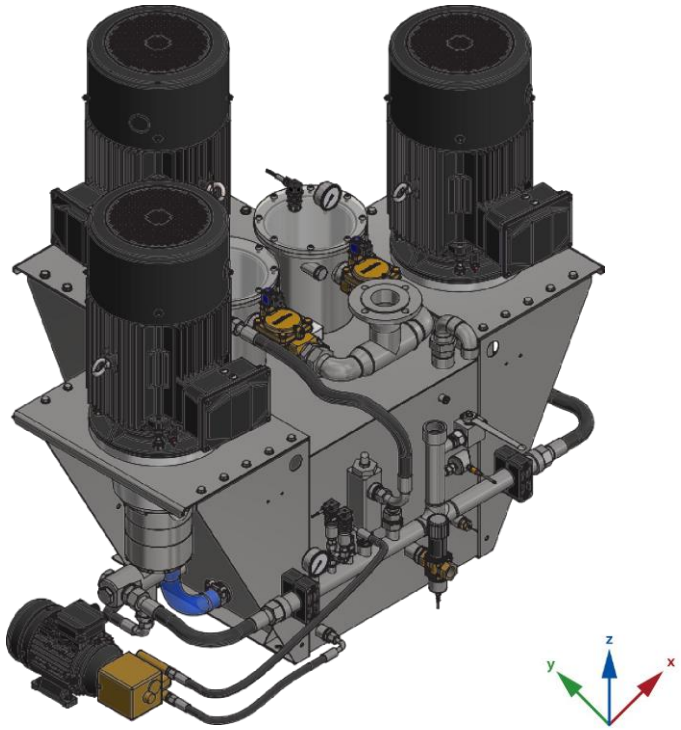
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

6.To see the pilot pump installation go to the drawing 20110309-101.

7.Min. 500mm clearance is required above the pump unit for service purpose.





*Specified cost for all types of Master Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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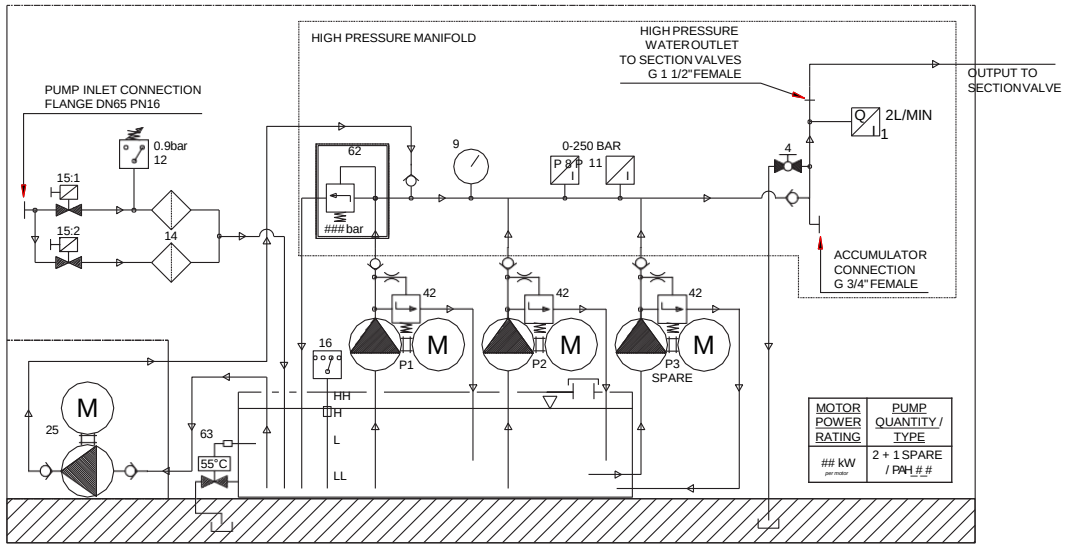
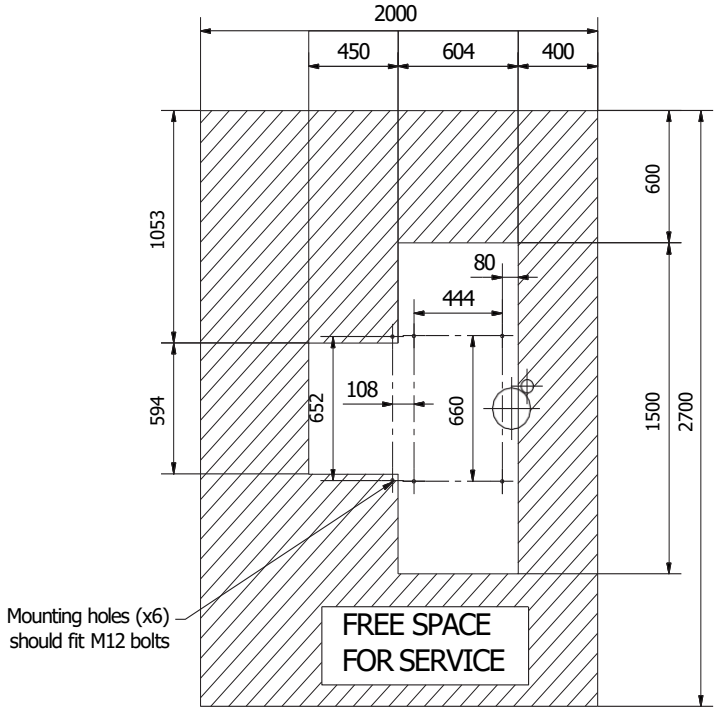
3.3.2 Master Pump Unit x 3 Pumps

20170909-30X-QM



SERVICE AREA FOOTPRINT
VIEW A-A (1:20)



DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
42 UNLOAD VALVE
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE

NOTES:

Weight:
- Dry: 845kg + approx. 300kg (depend on motor type)
- Wet: 1070kg + approx. 300kg (depend on motor type)

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN65 PN16 must be made of a non-corrosive material. Inlet water parameters: min. positive pressure (0.1 bar), flow required acc. calculations.

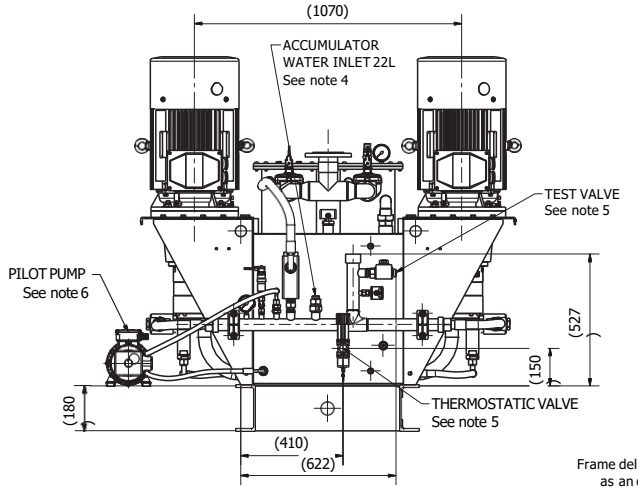
3.High pressure water outlet - female BSP 1 1/2" - should be connected to the sprinkler system.

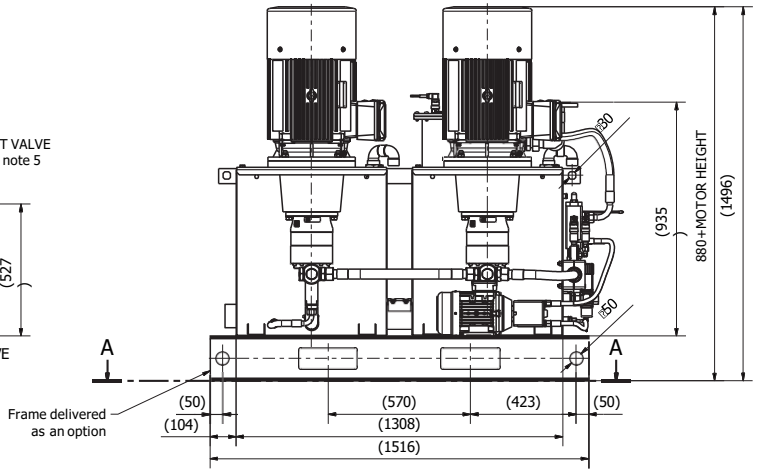
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

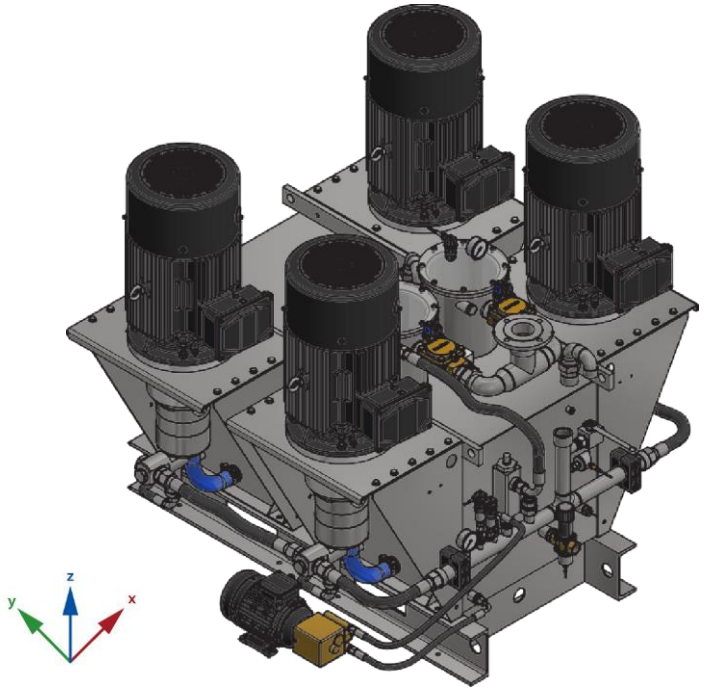
5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

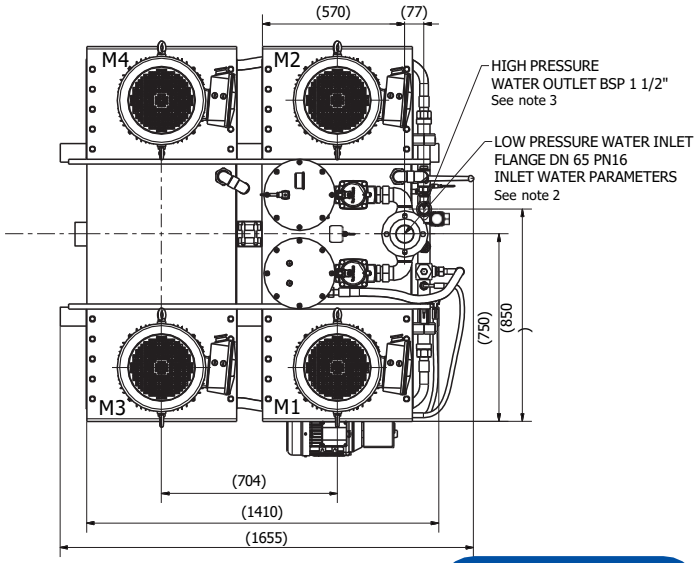
6.To see the pilot pump installation go to the drawing 20110309-101.

7.Min. 500mm clearance is required above the pump unit for service purpose.









*Specified cost for all types of Master Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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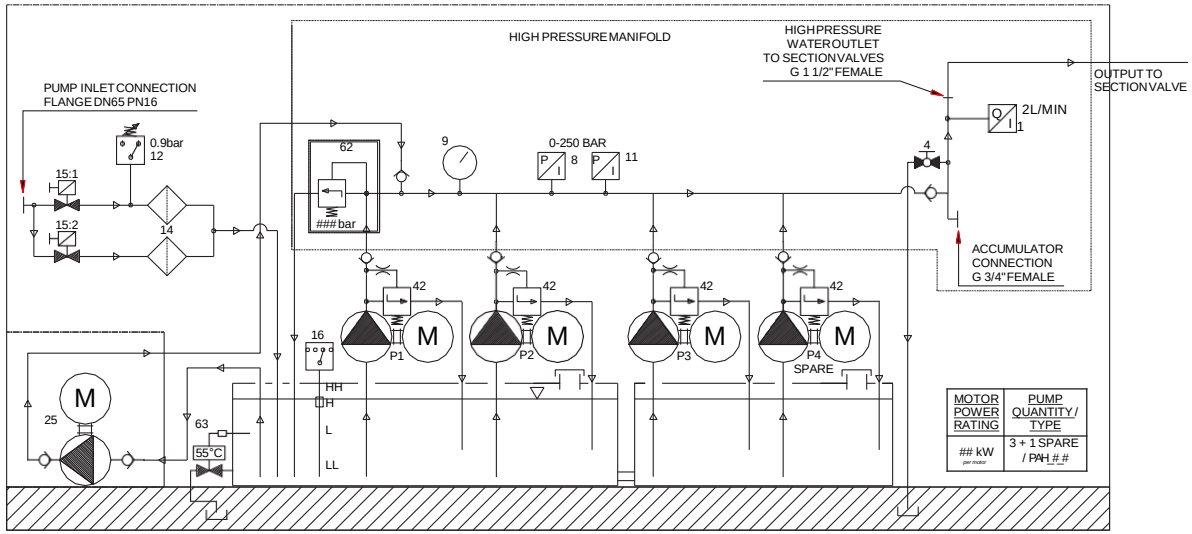
3.3.3 Master Pump Unit x 4 Pumps

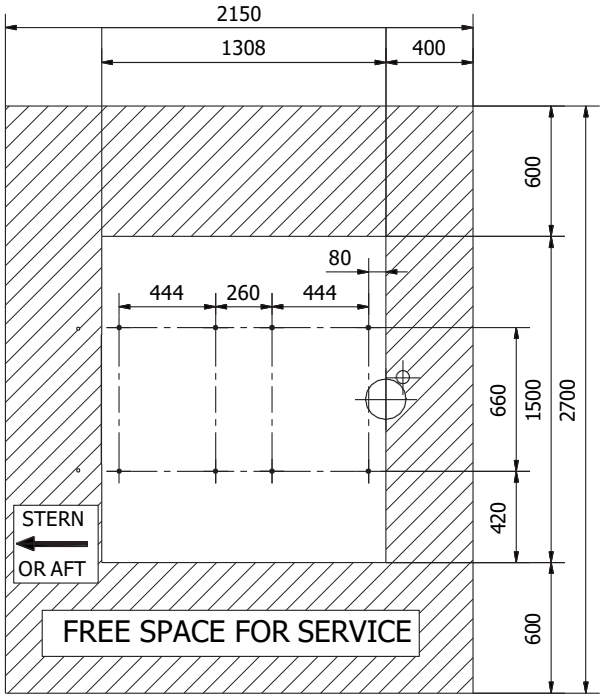
20170909-40X-QM



DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
42 UNLOAD VALVE
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE

SERVICE AREA FOOTPRINT
VIEW A-A (1:20)



NOTES:

Weight:
-Dry: 1350kg + approx. 400kg (depend on motor type)
-Wet: 1790kg + approx. 400kg (depend on motor type)
Frame weight: + 100kg

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN65 PN16 must be made of a non-corrosive material. Inlet water parameters: min. positive pressure (0.1 bar), flow required acc. calculations.

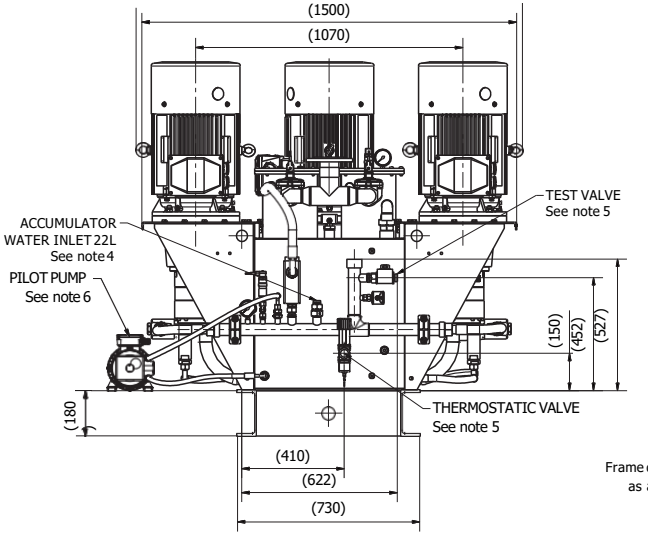
3.High pressure water outlet - female BSP 1 1/2" - should be connected to the sprinkler system.

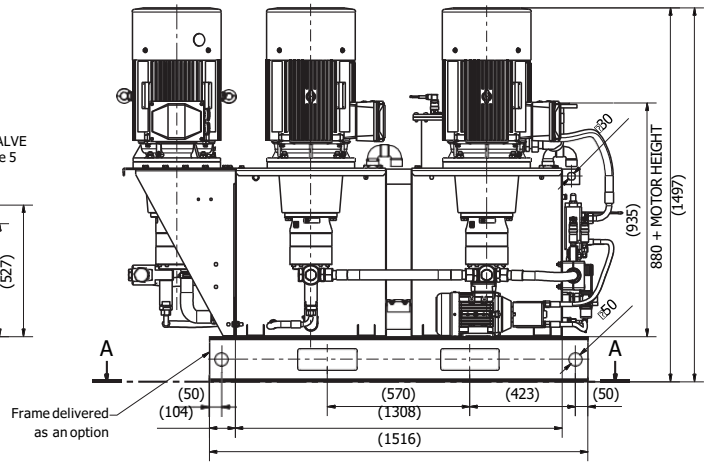
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

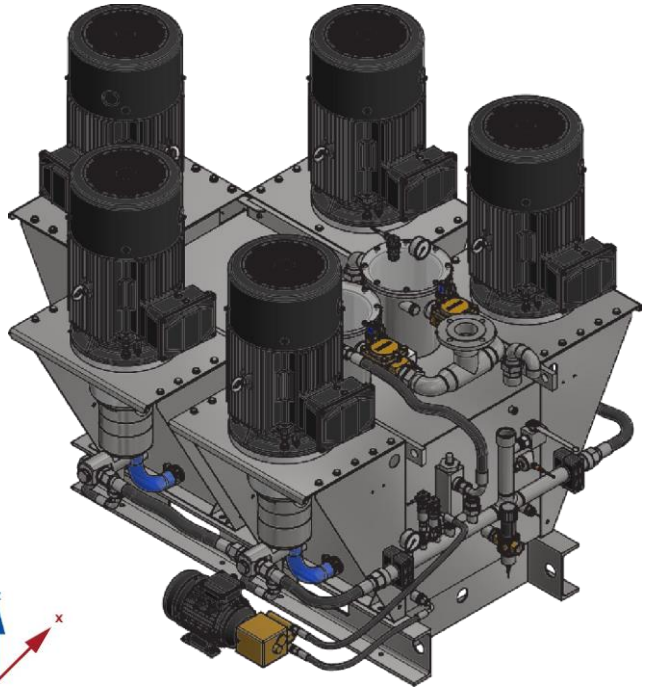
5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

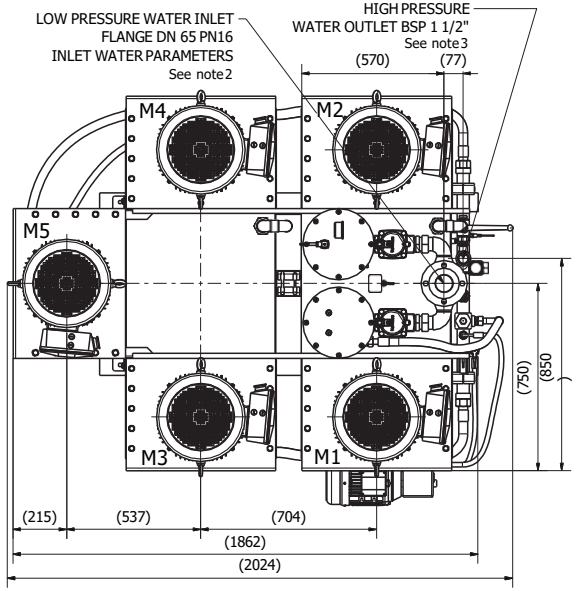
6.To see the pilot pump installation go to the drawing 20110309-101.

7.Min. 500mm clearance is required above the pump unit for service purpose.









*Specified cost for all types of Master Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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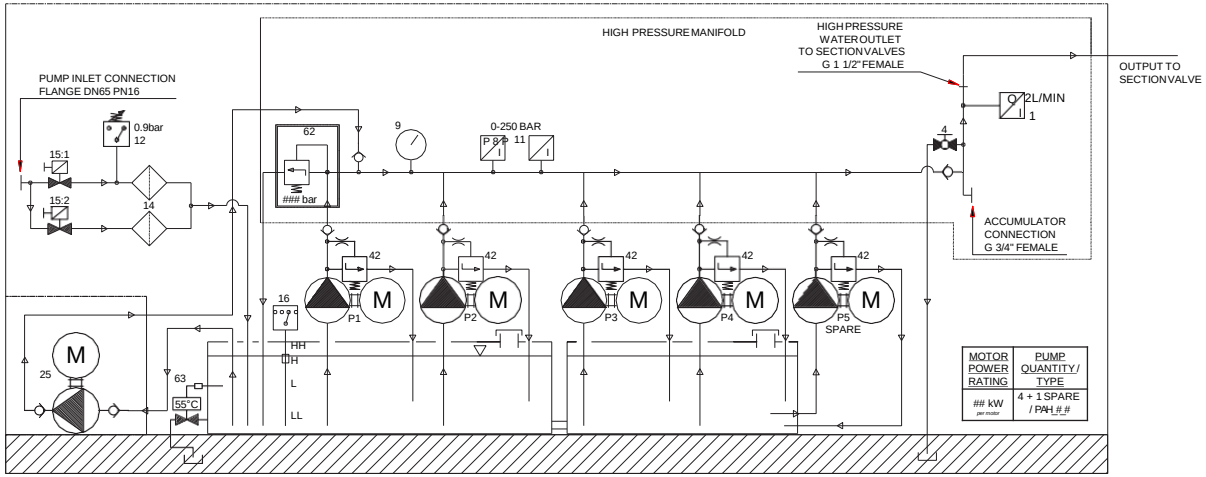
3.3.4 Master Pump Unit x 5 Pumps

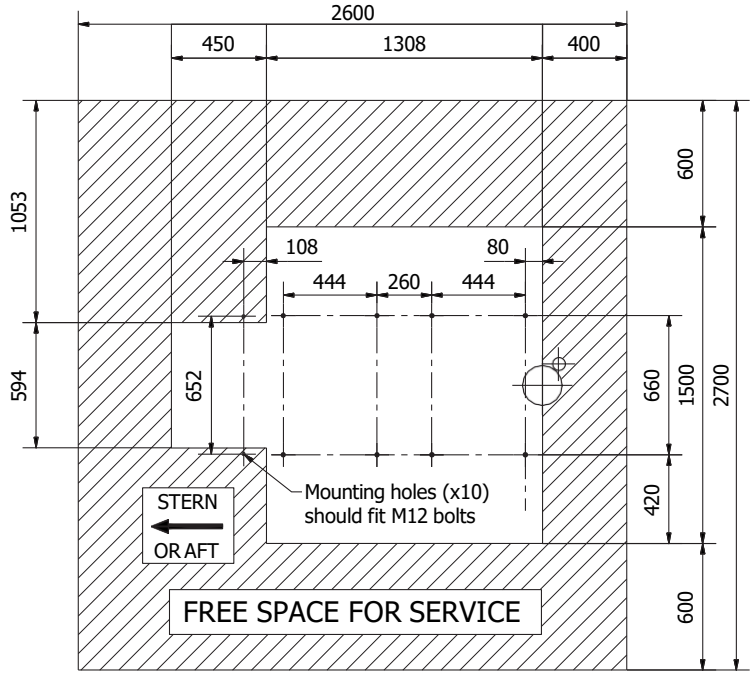
20170909-50X-QM



DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
42 UNLOAD VALVE
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE

SERVICE AREA FOOTPRINT VIEW A-A (1:20)



NOTES:

Weight:
-Dry: 1550kg + approx. 500kg (depend on motor type)
-Wet: 1990kg + approx. 500kg (depend on motor type)
Frame weight: + 100kg

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN65 PN16 must be made of a non-corrosive material. Inlet water parameters: min. positive pressure (0.1 bar), flow required acc. calculations.

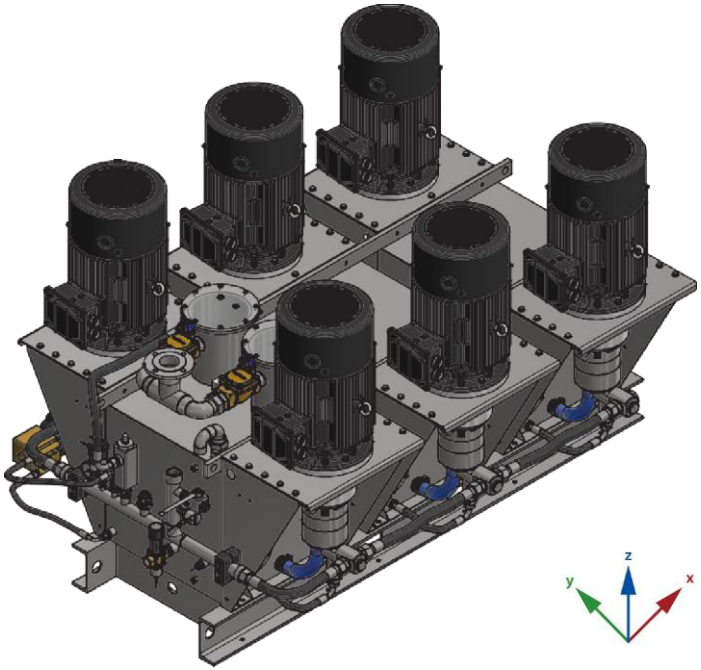
3.High pressure water outlet - female BSP 1 1/2" - should be connected to the sprinkler system.

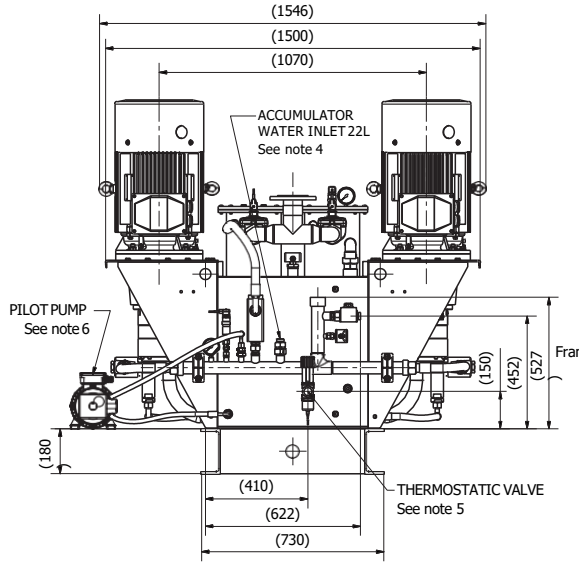
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

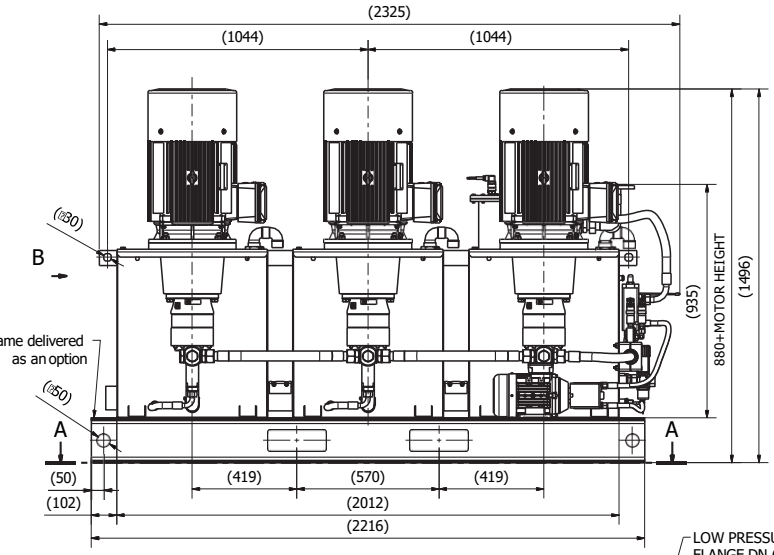
5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

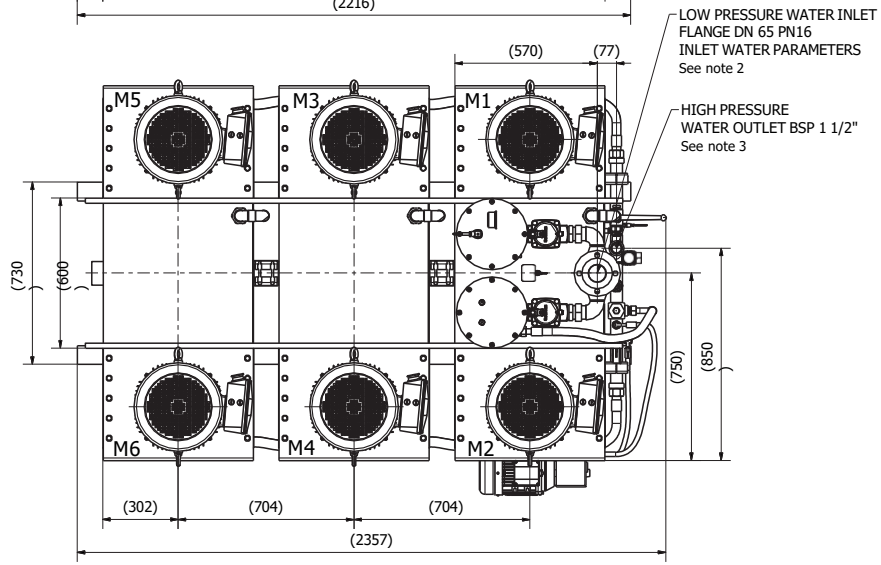
6.To see the pilot pump installation go to the drawing 20110309-101.

7.Min. 500mm clearance is required above the pump unit for service purpose.









*Specified cost for all types of Master Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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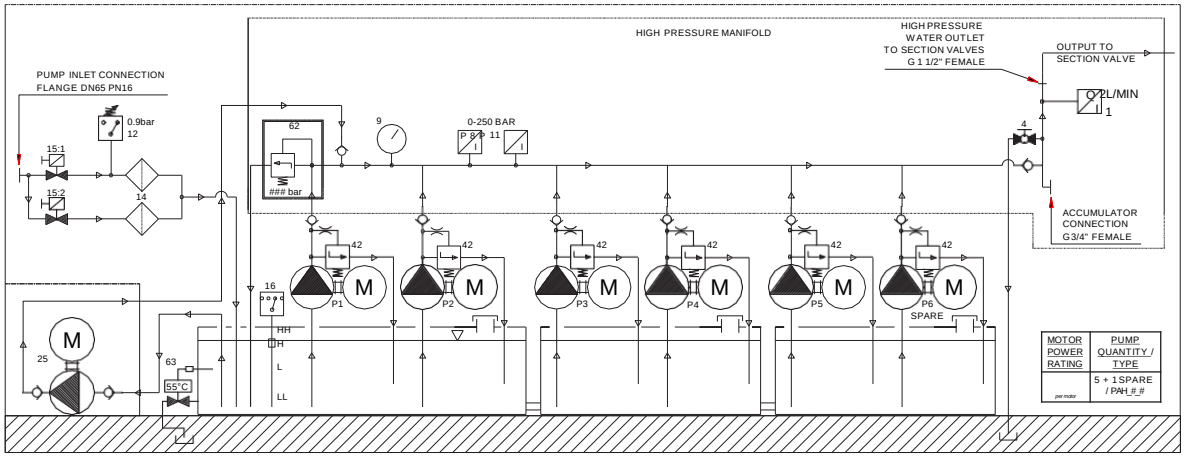
3.3.5 Master Pump Unit x 6 Pumps

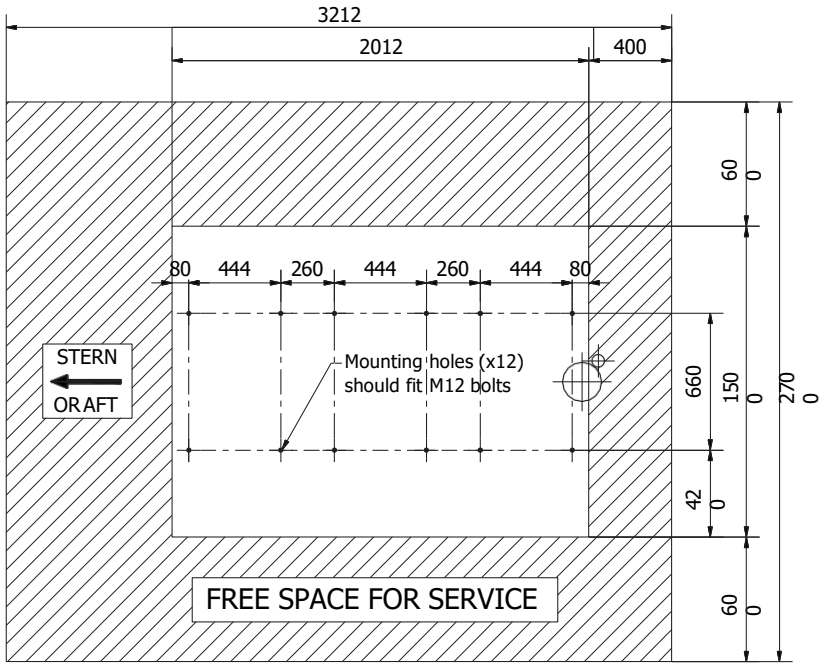
20170909-60X-QM



DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
42 UNLOAD VALVE
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE

SERVICE AREA
FOOTPRINT VIEW A-A
(1:20)



NOTES:

Weight:
-Dry: 1800kg + approx. 600kg (depend on motor type)
-Wet: 2460kg + approx. 600kg (depend on motor type)
Frame weight: + 140kg

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN65 PN16 must be made of a non-corrosive material. Inlet water parameters: min. positive pressure (0.1 bar), flow required acc. calculations.

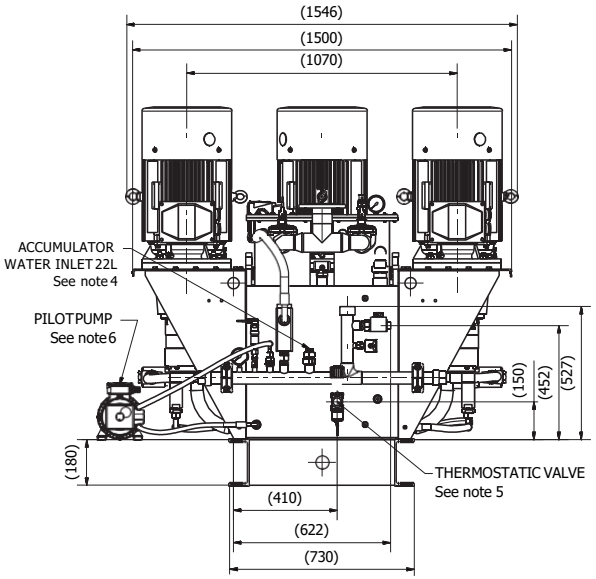
3.High pressure water outlet - female BSP 1 1/2" - should be connected to the sprinkler system.

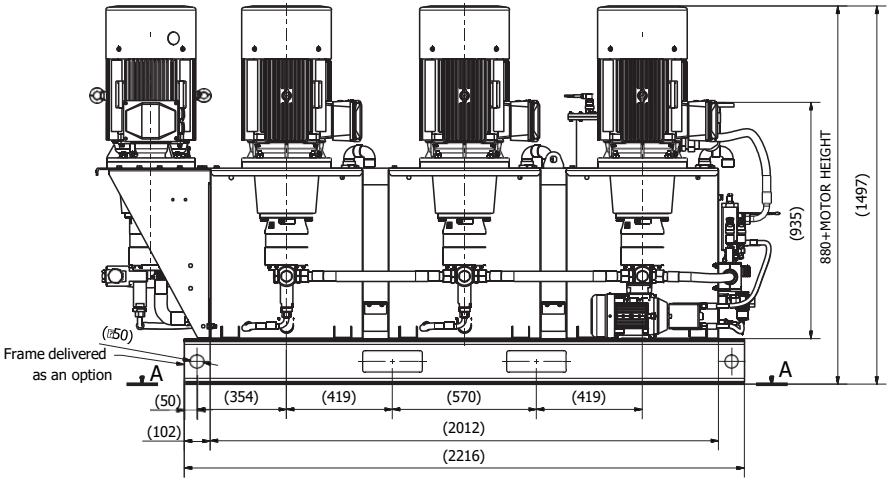
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

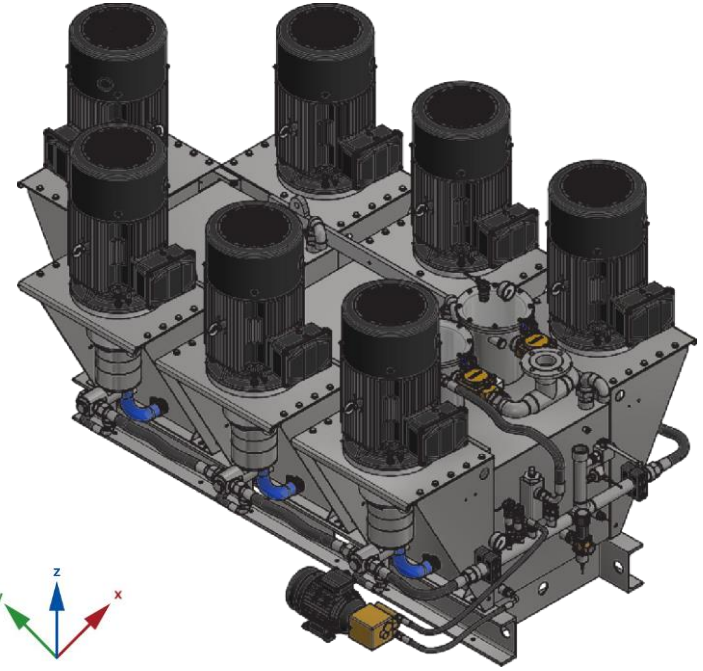
5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

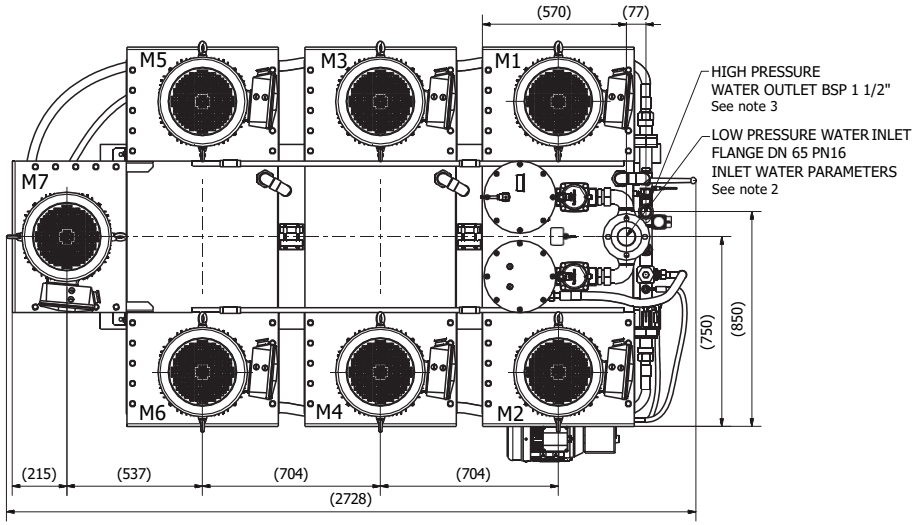
6.To see the pilot pump installation go to the drawing 20110309-101.

7.Min. 500mm clearance is required above the pump unit for service purpose.









*Specified cost for all types of Master Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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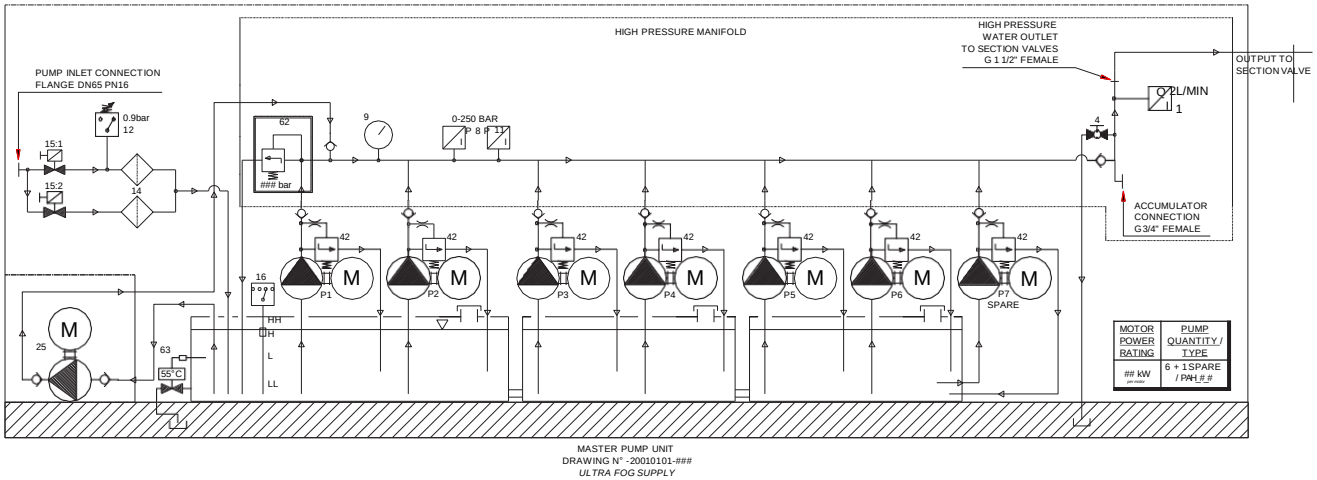
3.3.6 Master Pump Unit x 7 Pumps

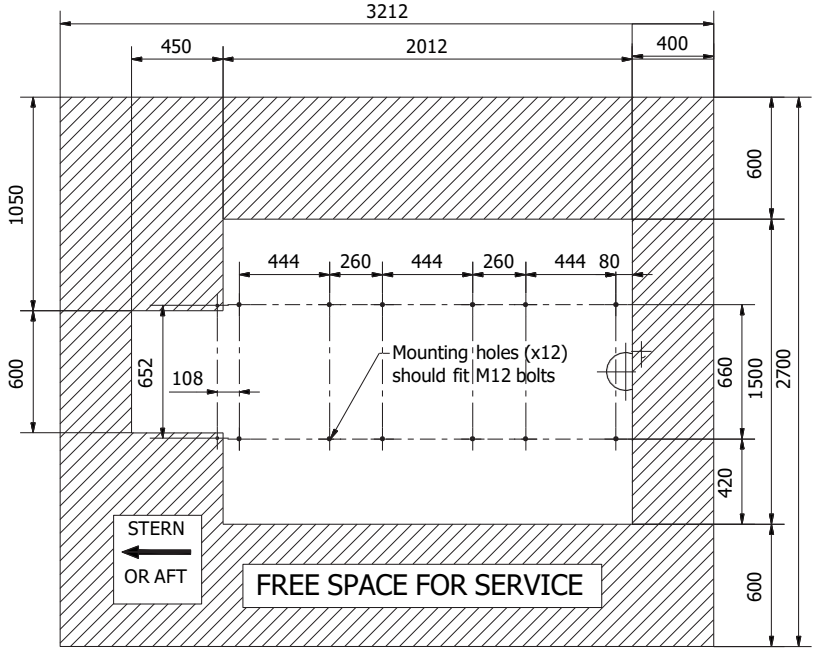
20170909-70X-QM



DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMARY FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC) 25
ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
42 UNLOAD VALVE
62 PRESSURE REGULATOR
63 TEMPERATURE VALVE

SERVICE AREA
FOOTPRINT VIEW A-A
(1:20)



NOTES:

Weight:
-Dry: 2000kg + approx. 700kg (depend on motor type)
-Wet: 2680kg + approx. 700kg (depend on motor type)
Frame weight: + 140kg

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN65 PN16 must be made of a non-corrosive material. Inlet water parameters: min. positive pressure (0.1 bar), flow required acc. calculations.

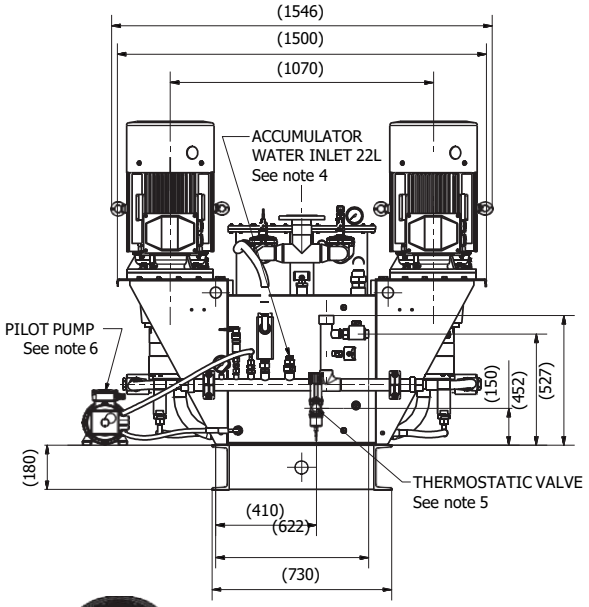
3.High pressure water outlet - female BSP 1 1/2" - should be connected to the sprinkler system.

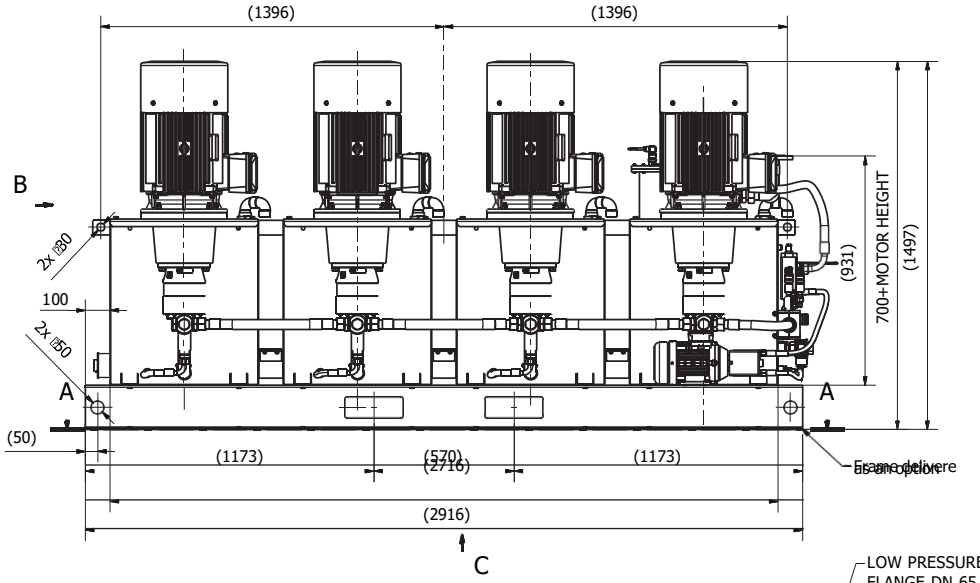
4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

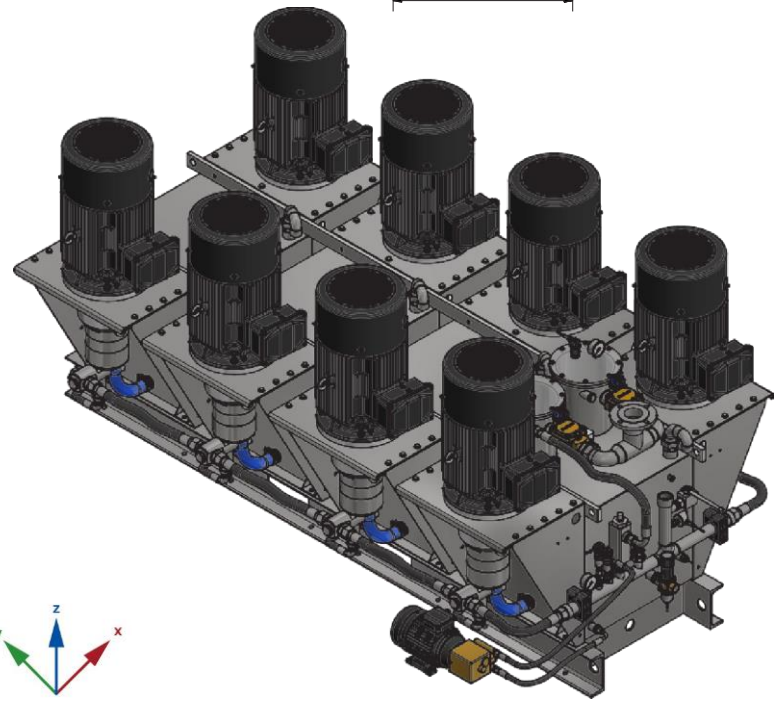
5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

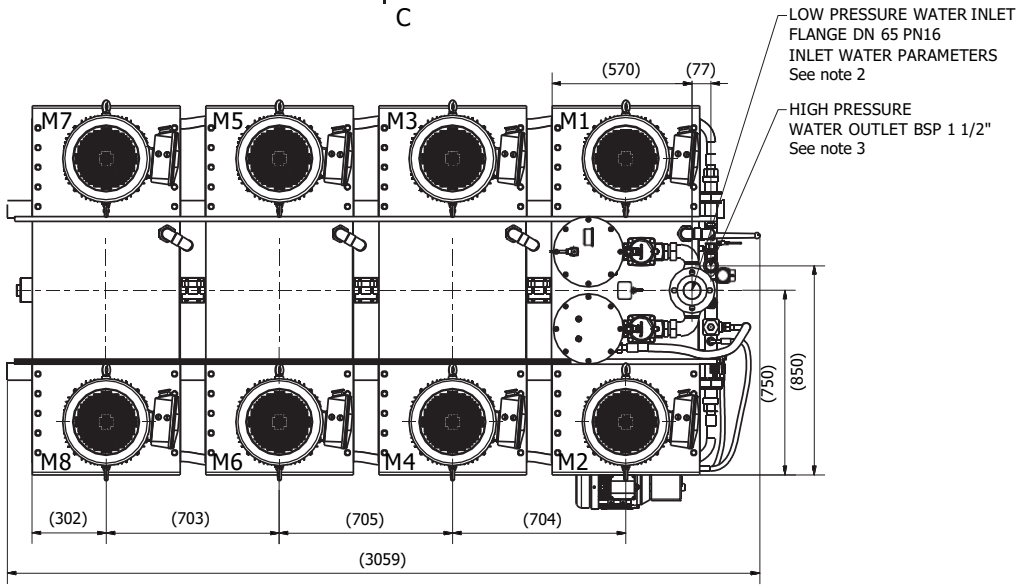
6.To see the pilot pump installation go to the drawing 20110309-101.

7.Min. 500mm clearance is required above the pump unit for service purpose.









*Specified cost for all types of Master Pump Unit consider standard Hoyer supplier motors.
For special brand or motor the price have to be confirmed.

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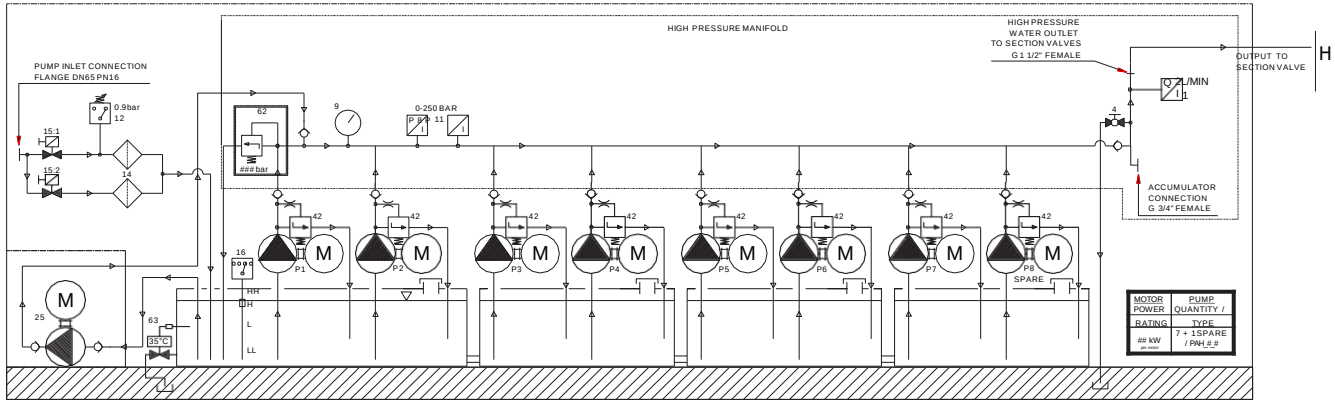
3.3.7 Master Pump Unit x 8 Pumps

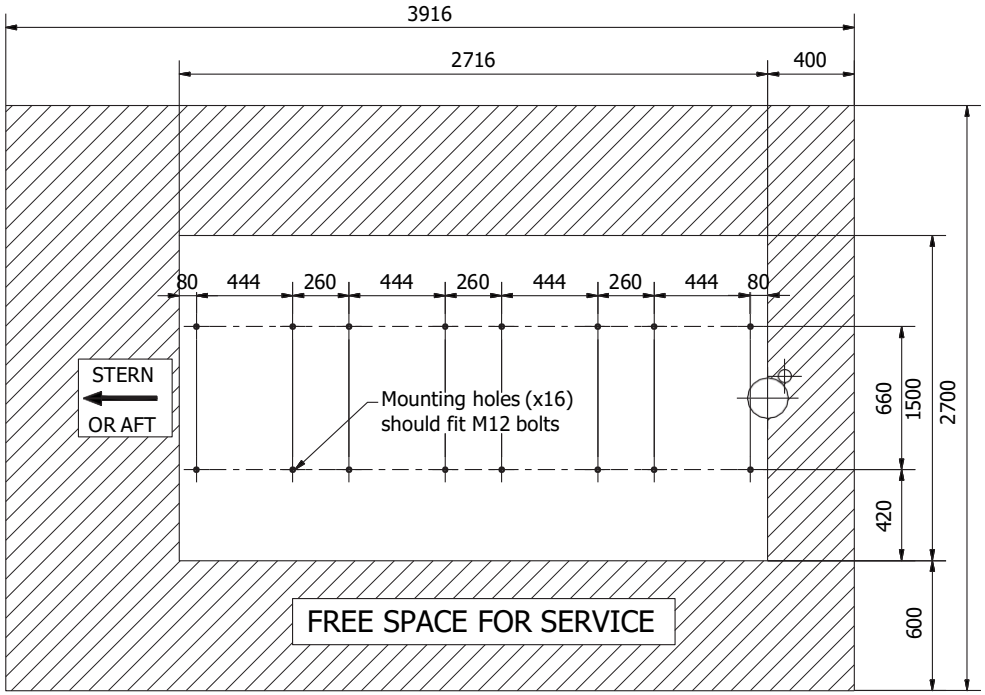
20170909-80X-QM



DESCRIPTION

1 FLOW SWITCH
8 PRESSURE MONITOR (4-20mA (MAIN PUMPS)
9 PRESSURE GAUGE
11 PRESSURE MONITOR (4-20mA) (PILOT PUMP)
12 PRESSURE SWITCH (NC)
13 PRESSURE GAUGE
14 MAIN FILTERS
15:1 SOLENOID VALVE TO PRIMAR Y FILTER
15:2 SOLENOID VALVE TO SPARE FILTER
16 LEVEL SWITCH (LL = NO, L = NO, H = NC, HH = NC)
25 ELECTRICAL PILOT PUMP (FLOOR MOUNTED)
42 UNLOAD VALVE
62 PRESSURE REGULATOR
63 TEMPERATURE

SERVICE AREA FOOTPRINT
VIEW A-A (1:20)



NOTES:

Weight:
-Dry: 2400kg + approx. 800kg (depend on motor type)
-Wet: 3060kg + approx. 800kg (depend on motor type)
Frame weight: + 190kg

1.Temperature in pump unit room must not exceed ambient temperature represented on electric motor plate.

2.Pipe for inlet water connecting with flange DN65 PN16 must be made of a non-corrosive material. Inlet water parameters: min. positive pressure (0.1 bar), flow required acc. calculations.

3.High pressure water outlet - female BSP 1 1/2" - should be connected to the sprinkler system.

4.Water accumulator tank unit inlet - thread M30x2 (22L ISO 8434-1) - used only for accommodation protection.

5.Thermostatic valve and test valve Ø12 should be connected with drain point. Standard pipe Ø12mm.

6.To see the pilot pump installation go to the drawing 20110309-101.

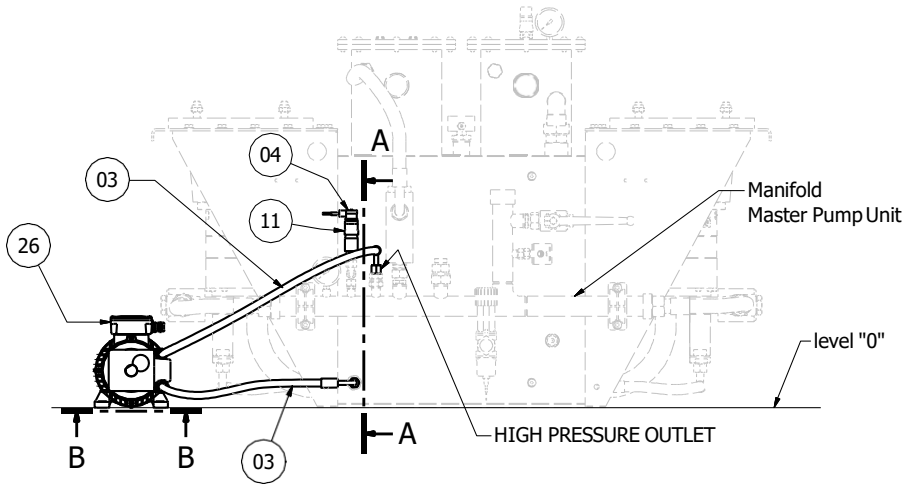
7.Min. 500mm clearance is required above the pump unit for service purpose.

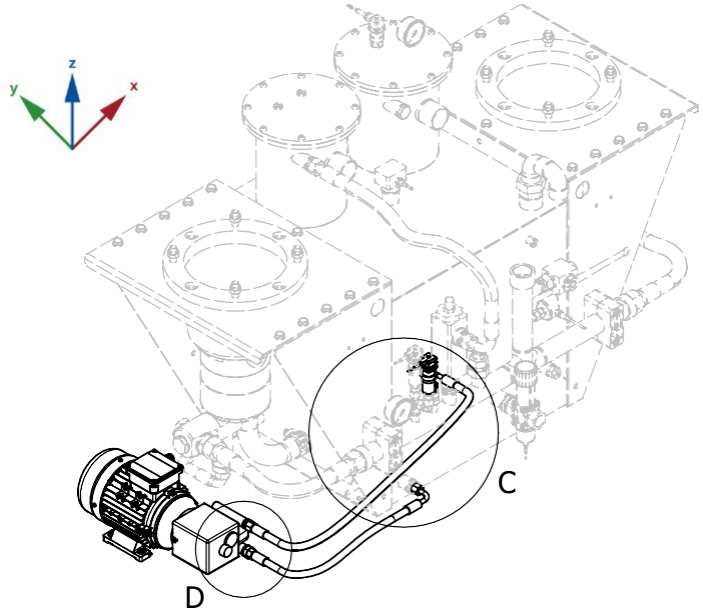
3.4 Electric Pilot Pumps

The purpose of the pilot pump is to maintain the system's pilot pressure (standby pressure). Upon activation of a glass-bulb nozzle in the system, the system's pressure will fall rapidly, and the pilot pump will start automatically. The high pressure pump unit will respond automatically in response to the detection of the flow of water, induced by the pilot pump. This pump maintains approximately 20 bar on the outlet side in the piping system leading to the nozzles.

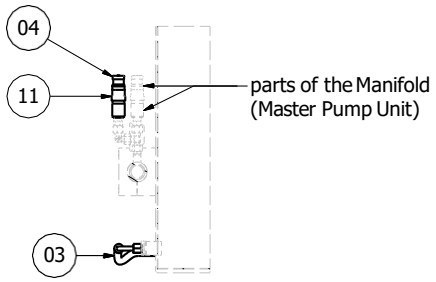
Under normal circumstances, the pilot pump compensates for small fluctuations of the system's pilot pressure.

For proper pilot pump operation electrical inverter is required. Excluded from the delivery of this item.





A-A (1:10)



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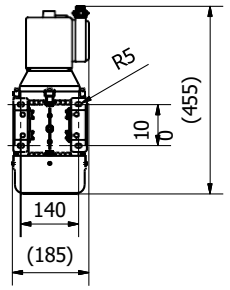
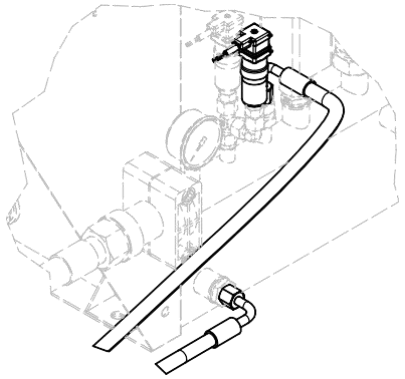


C (1 : 5)



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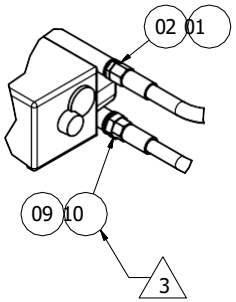


26	1	1002031	EL. PILOT PUMP W70 1,1 kW
11	1	1000016	PRESS. TRANSM. 0-250BAR 4-20mA
10	1	1000903-P	XGE-12LR8-SY 1/2" (OUTPUT SECT. VALVE)
09	1	1000069	WASHER RUBBER STEEL G1/2
04	1	1000002	CABLE SWITCH/ SOLONOID 5M
03	2	20001219-021	PILOT PUMP HOSE EL PILOT PUMP
02	1	1000902-P	COUPLING XGE-12LR-SY 3/8 316
01	1	1000024	RUBBER STEEL WASHER G3/8 216-06
ITEM	QTY	PART NUMBER	DESCRIPTION

NOTES:

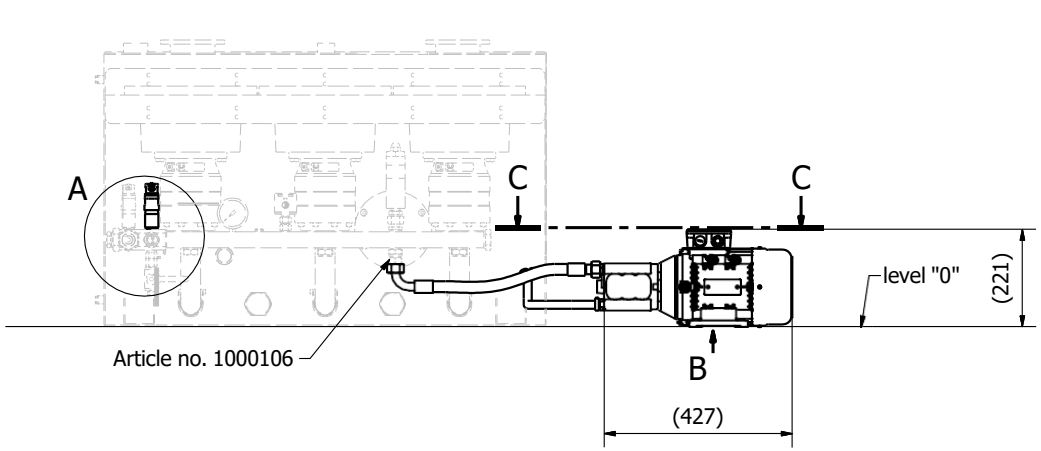
For proper pilot pump operation electrical inverter is required. Excluded from the delivery of this item.

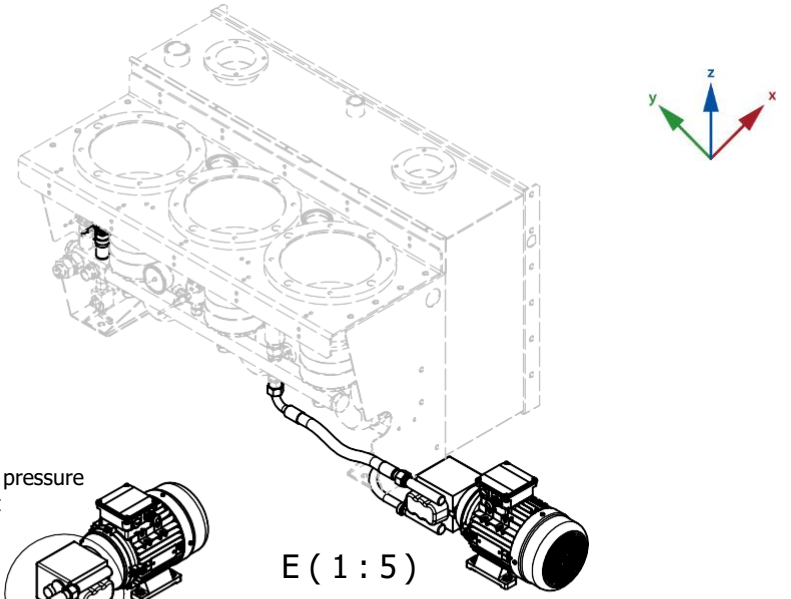
1. Pump: part no. 1002031.

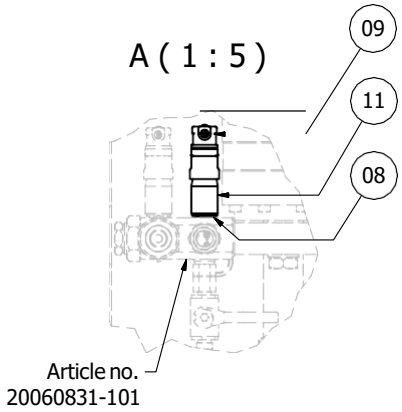
2. Weight ~17kg.

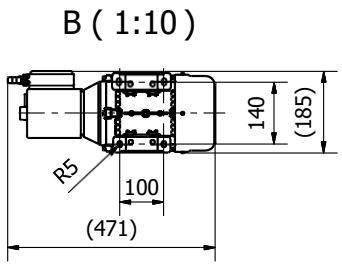
3.Pump foot must be mounted in horizontal position placed close to the tan

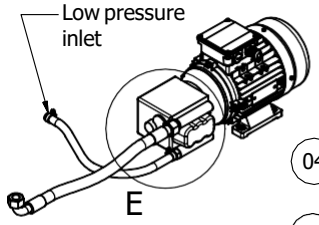
3.4.1 Pilot Pump Electric Master Pump Unit

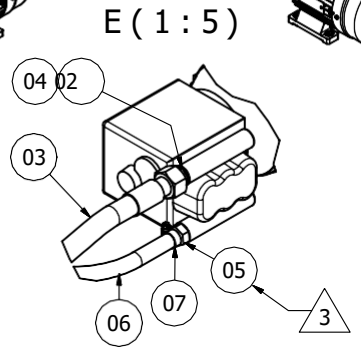


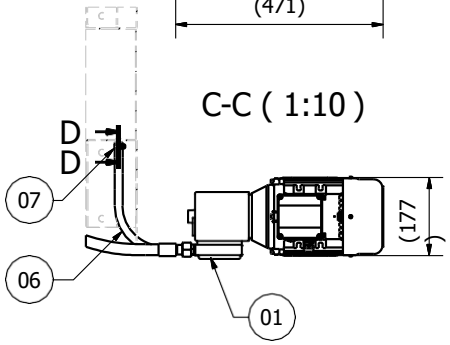


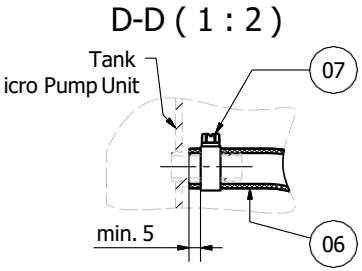












ITEM	QTY	PART NUMBER	DESCRIPTION
11	2	1000016	PRESS. TRANSM. 0-250BAR 4-20mA
09	2	1000002	CABLE SWITCH/ SOLONOID 5M
08	2	1000007	RUBBER STEEL WASHER G1/4 216-04
07	2	1001225	HOSTE CLAMP ABA NOVA 13-20MM RF
06	1	1001224	HOSE ID 14 DY 19.4
05	1	1004393	HOSE JOINT BSPT 1/2" 316L L=60mm
04	2	1000024	RUBBER STEEL WASHER G3/8 216-06
03	1	20001219-021	PILOT PUMP HOSE EL PILOT PUMP
02	1	1000902-P	COUPLING XGE-12LR-SY 3/8 316
01	1	1002031	EL. PILOT PUMP W70 1,1 kW

NOTES:

For proper pilot pump operation electrical inverter is required. Excluded from the delivery of this item.

1. Pump: part no. 1002031 Alcon W70, 10kg.

2.Pump foot must be mounted in horizontal position placed close to the micro tank.

3.4.1 Pilot Pump Electric Micro Pump Unit

20110309-201-QM

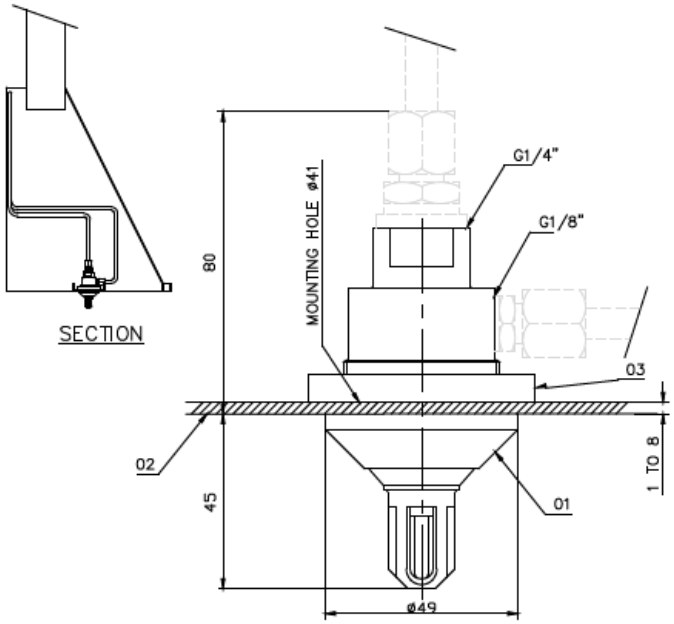
4. DEEP FAT FRYER SYSTEM

High pressure water mist systems for deep fat fryers (DFF), either standard installations or integrated into the main system. The Ultra Fog deep fat fryers system can either be manually or automatically activated. The system is equipped with a potential free contact that can be used to isolate the power to the fat fryers when the system activates.

The DFF protection systems can be constructed in 2 types – accumulator or pump driven. The system consist of Ultra Fog patented nozzle 803-08-B, installation bracket, control box (CB1) and manual release valve with limit switch. In automatic release method, in the event of a DFF fire, the Ultra Fog nozzle opens automatically in response to heat when the temperate at the nozzle exceeds 141°C. The nozzle is equipped with a heat sensitive, frangible glass bulb, which ruptures at temperatures exceeding 141°C, thereby allowing the nozzle to open. Upon activation the watermist will rapidly cool and extinguish the fire, without displacing the DFF cooking oil.

When the nozzle is released, CB1 automatically isolates power to the deep-fat fryer and an alarm is generated. To trigger the system before the glass bulb cracks, the manual release valve inside the cabinet is opened by pulling it down. The water then flows into the side inlet of the nozzle and directly down to the mist producer, while the glass bulb remains intact.

As opposed to automatic release it is possible to shut off the water flow when the fire is extinguished by closing the valve again. The valve to turn off the water flow is used when the fire is extinguished, thereby it may be possible to extinguish the fire without fully depleting the water supply.

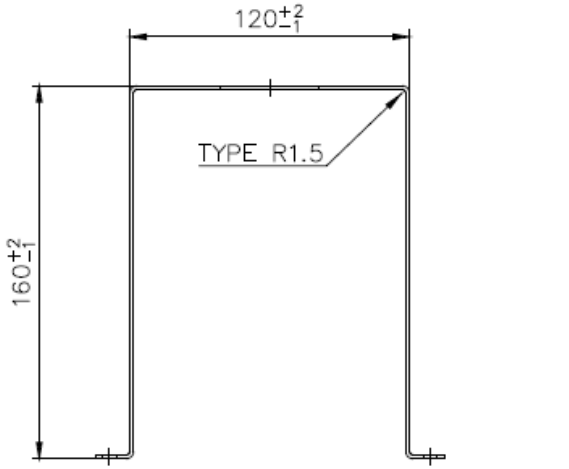


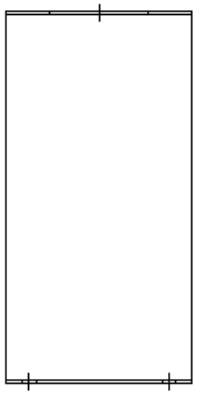
ITEM	NAME	PCS	MATERIAL
03	NUT M40*1,5	1	1001013
02	BRACKET NOZZLE	1	20020210–001
01	NOZZLE DFF K=0.8	1	803–080–B

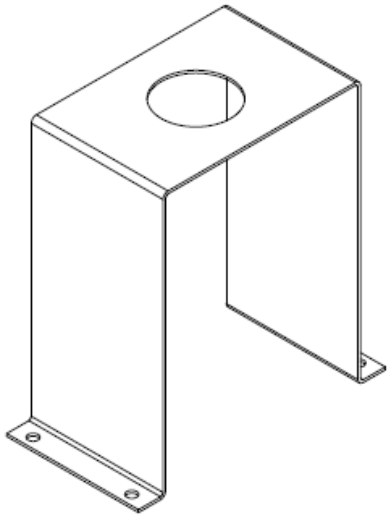
-

4.1 Deep Fat Fryer Nozzle K=0.8

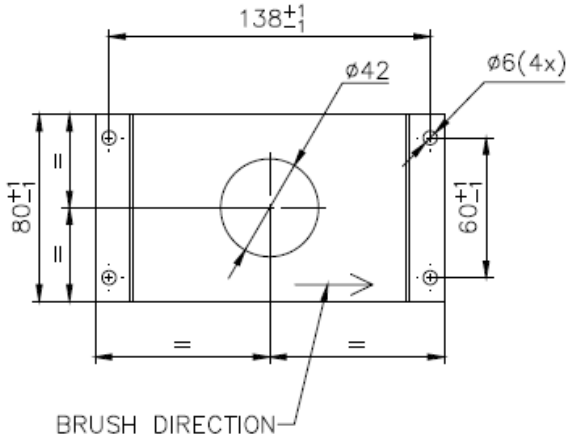
803.XXX-B-QM







ISO – VIEW



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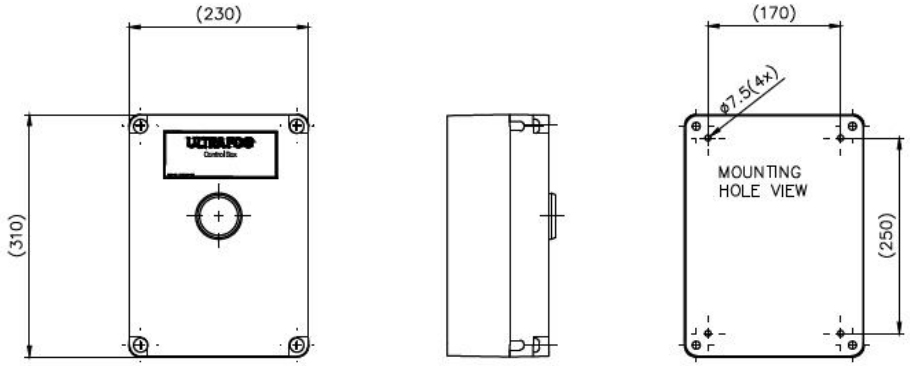
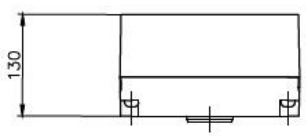
4.2 Bracket – Nozzle Type 802

20020210-001





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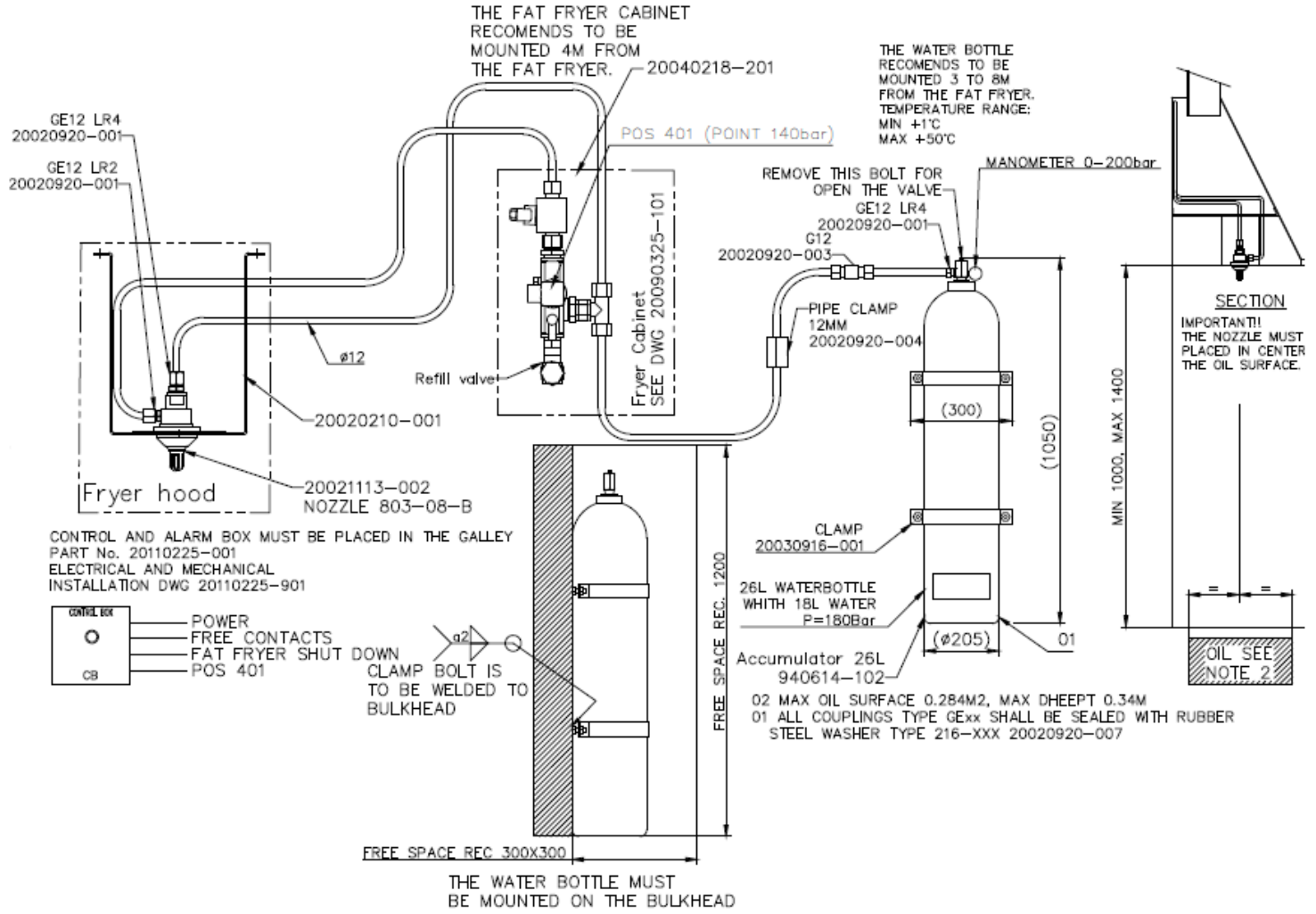
4.3 Controö Box, Fat Fryer & Galley Duct (CB1)

20110225-001-QM

6.4 Deep Fat Fryer System - Accumulator Type



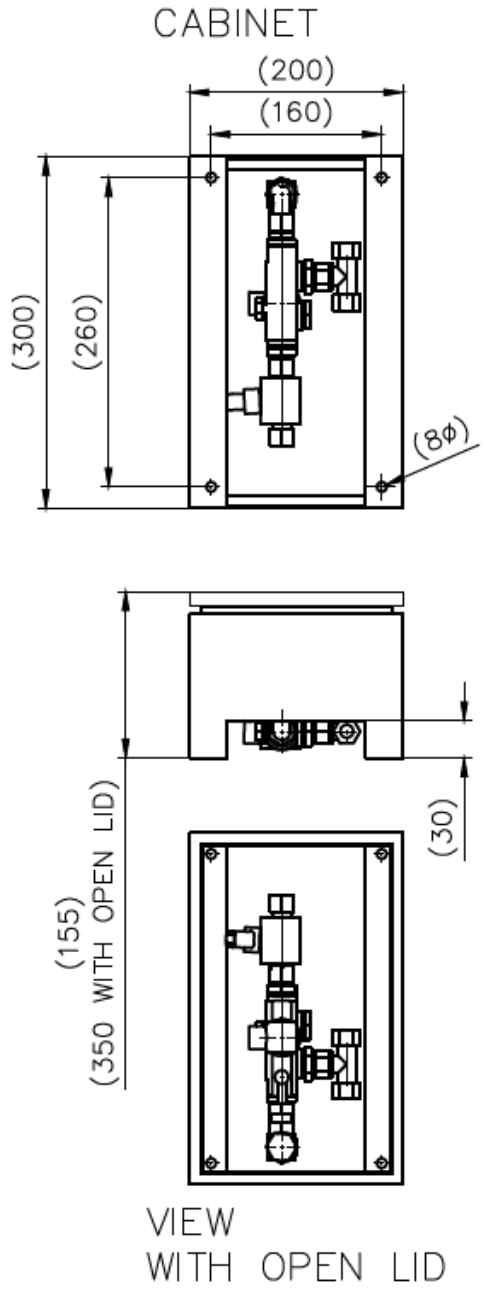
NOTES:

Weight: 55kg
Filling pressure approx.: 200bar
Cylinder filled 74% with water
Burst disc: 306bar

-

4.4.1 Accumulator 27l with N2 and Water

940614-102-QM



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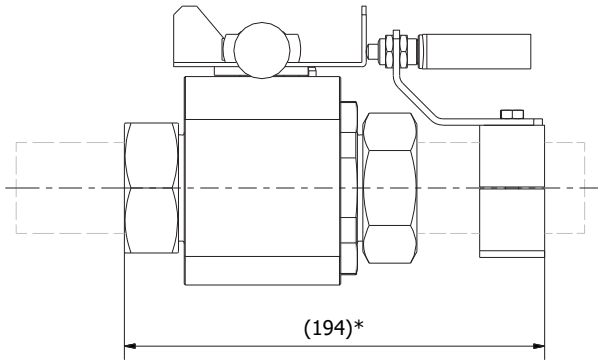
4.4.2 Deep Fat Fryer Cabinet Accumulator Type

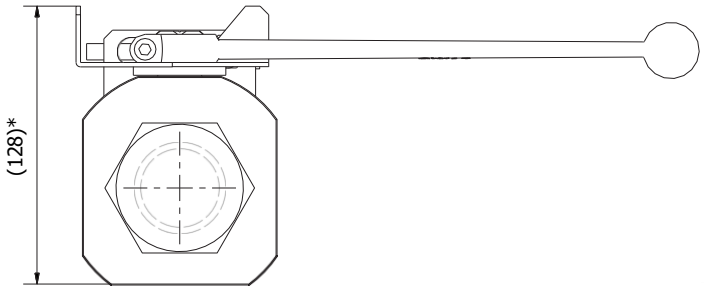
20090325-101-QM

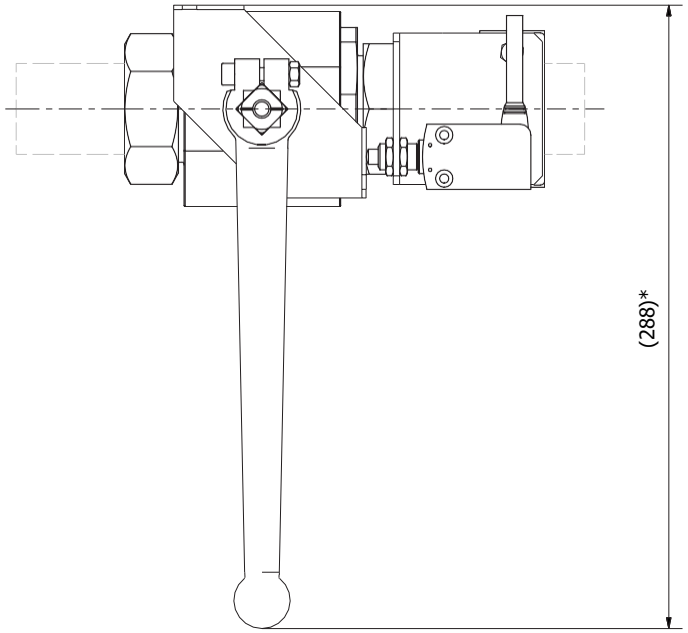
5. PRE-ACTION SYSTEMS

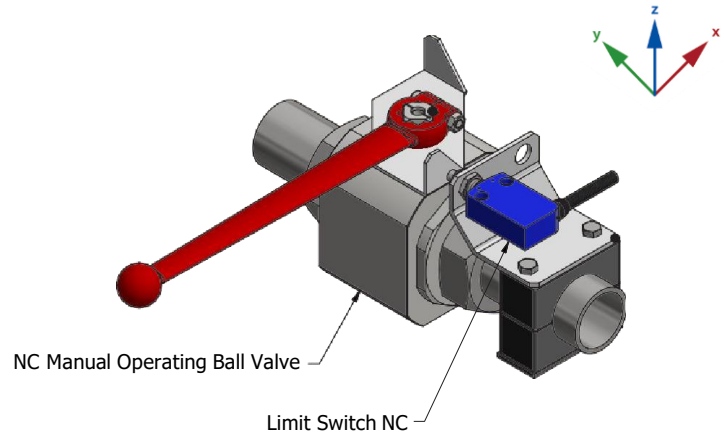
The Ultra Fog Pre-Action water mist system uses automatic sprinklers attached to a piping system containing air, with a supplemental detection system installed in the same areas as the sprinklers. System activation requires both a signal from the detection system and the heat activation of a sprinkler. Pre-action systems are used to protect areas where the risk of false discharge or leakage must be kept to an absolute minimum or in area with freezing temperature.

The Ultra Fog Pre-Action System is used for fire protection of areas, where result of system accidental activation could cause damage to sensitive equipment or artefacts. There are few types of standard pre-action systems manual: normally closed ball valve with limit switch or normally closed electric section valve. Second group is automatically activated, with pressurised piping after the non-return valve with nitrogen or compressed air which pressure is monitored by pressure switches.









No.	Description
20121213-101	Manual Pre Action System NC Ball Valve 12mm
20121213-201	Manual Pre Action System NC Ball Valve 22mm
20121213-301	Manual Pre Action System NC Ball Valve 28mm
20121213-401	Manual Pre Action System NC Ball Valve 42mm

NOTES:

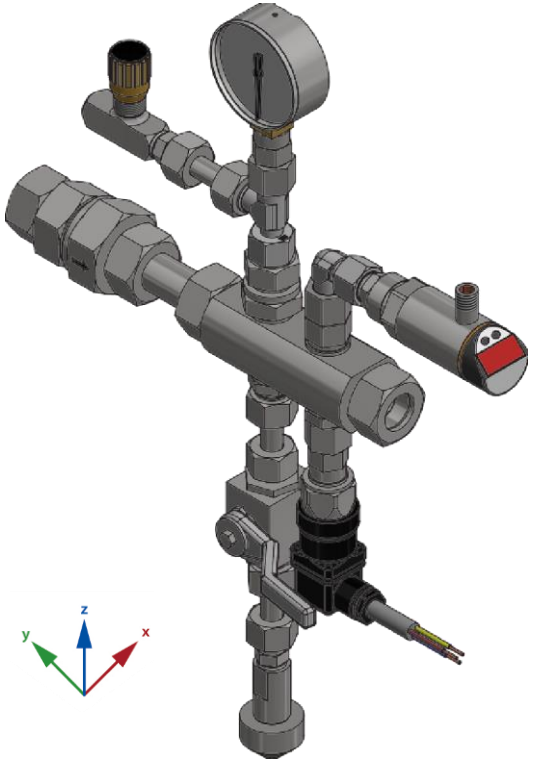
1.Protected area should be equipped with a fire detection system to inform about the need of activation.

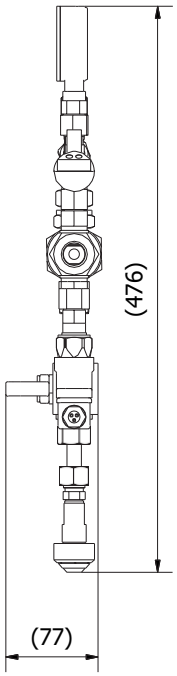
2.*Max dimensions are given (42mm), depends from product configuration.

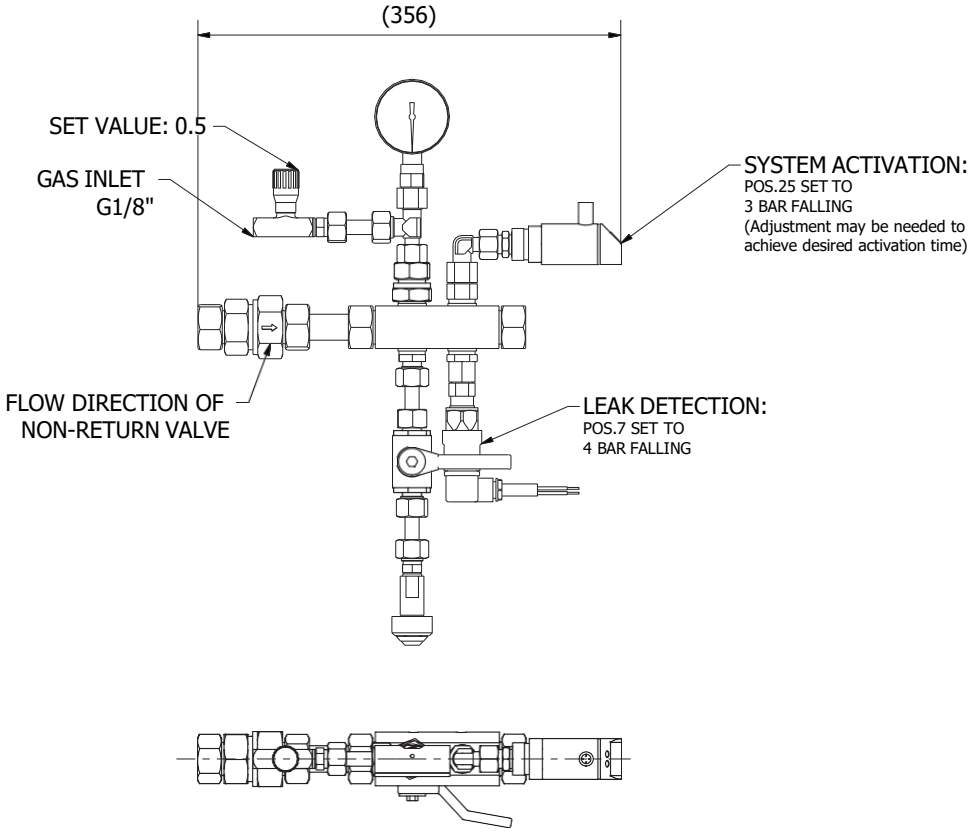
XXXX SEK

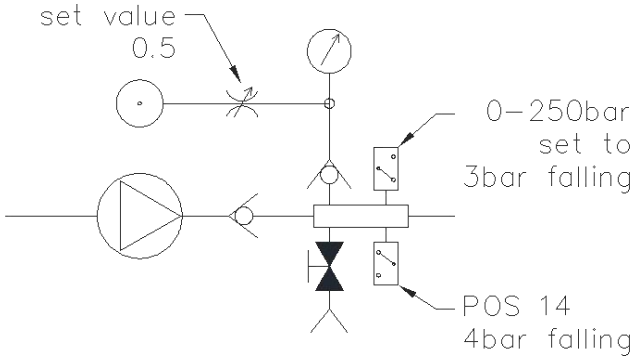
5.1 Manual Pre-Action System

20121213-XXX-QM









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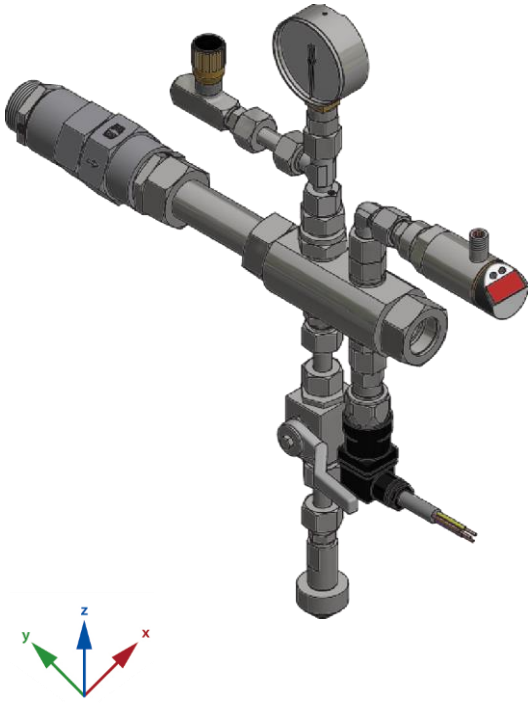
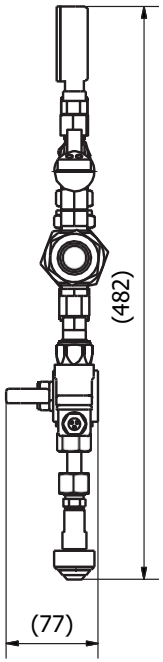
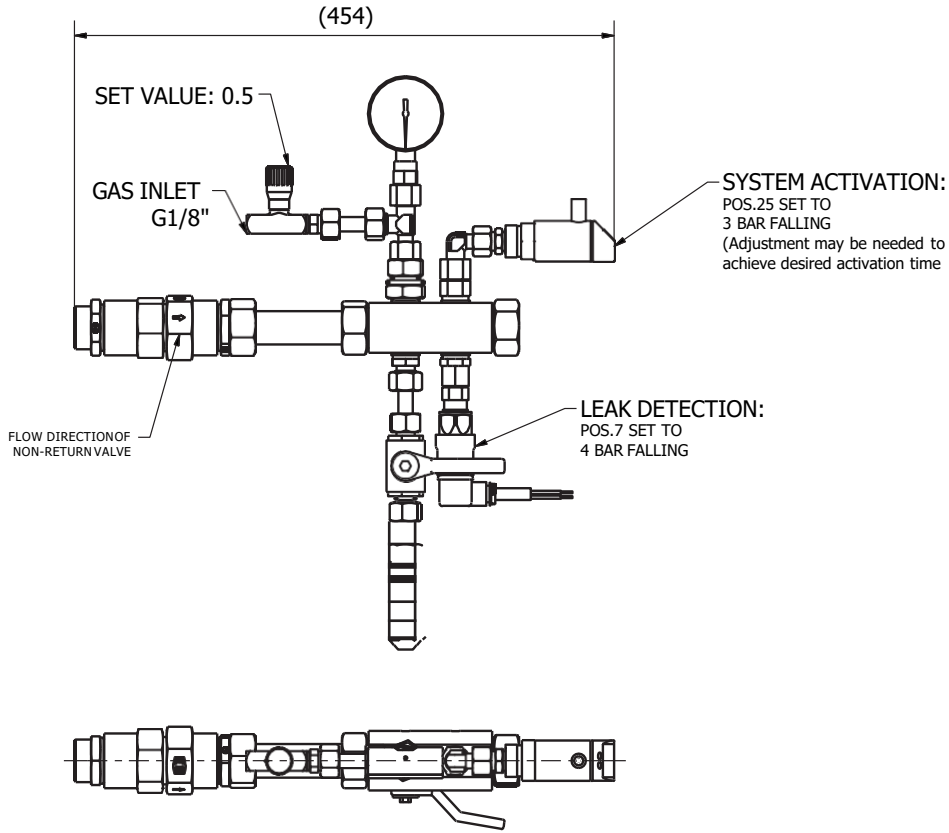
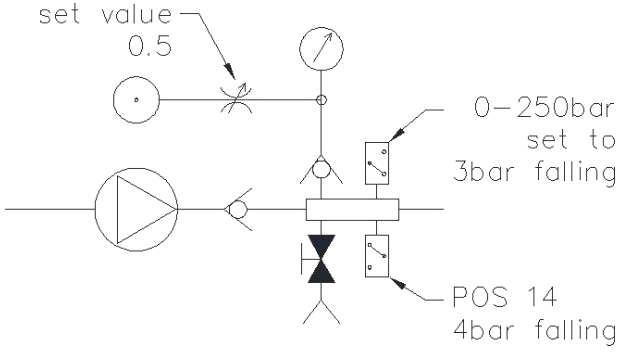
5.2 Pre Activation Unit 22mm

20121212-101-QM









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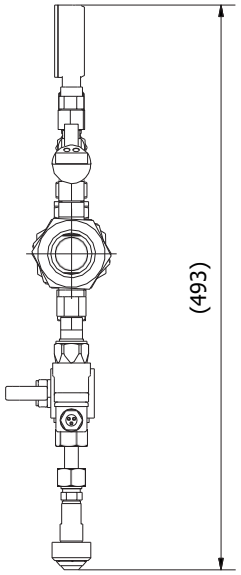
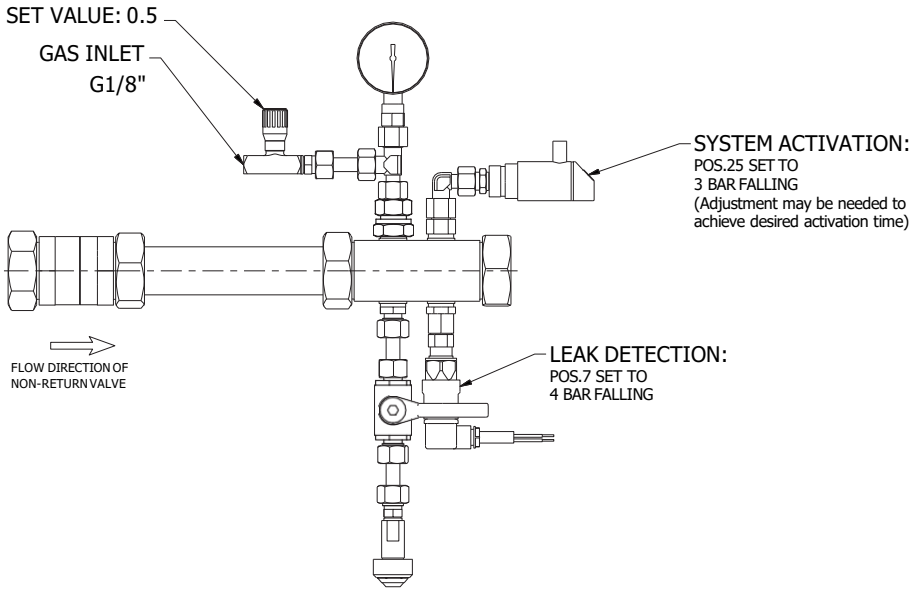
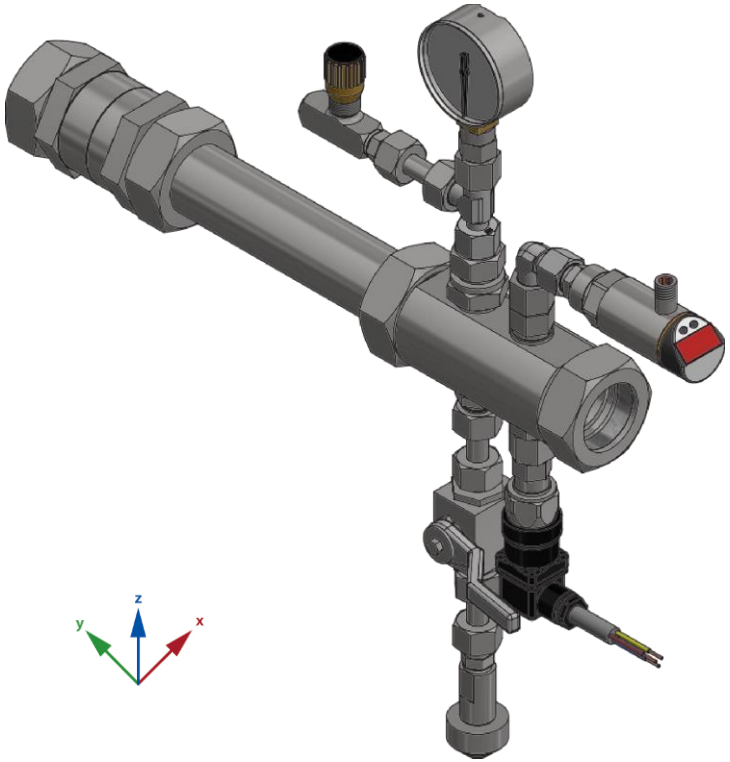
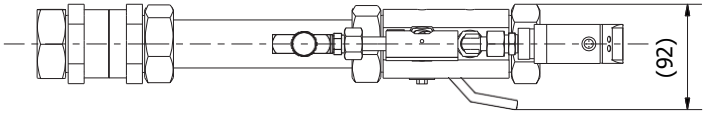
5.3 Pre Activation Unit 28mm

20121212-102-QM









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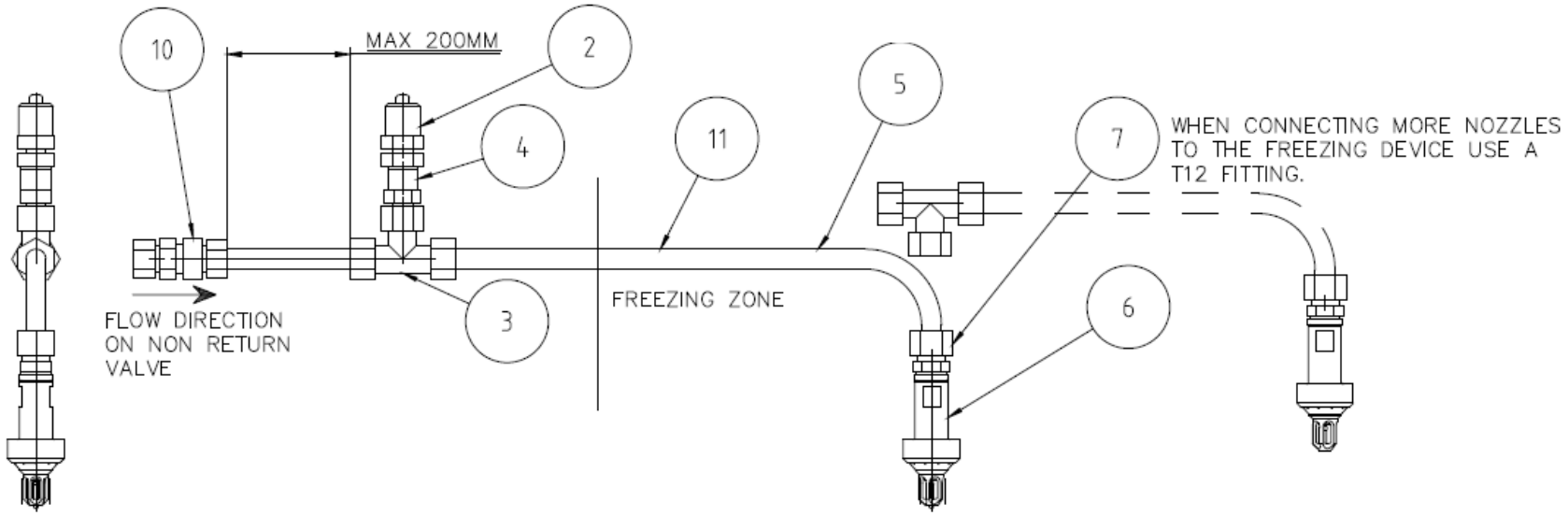
5.4 Pre Activation Unit 42mm

20121212-201-QM

6. FREEZING TEMP DEVICE KIT

The Ultra Fog Freezing Temp Device Kit is used for those cases where there is a risk of frost building up on the pipe system (for example in cold storage rooms) - that part of the pipe system which is located in the cold area is filled with either a salt solution or glycol-based solution having a freezing point is below -40°C. A non-return valve (to be installed at least 1m away from the freezing space), ensures that the anti-freeze solution does not mix with the clean water within the rest of the pipework. When the water mist system is activated, the salt solution is pushed out by the fresh water.

The filling point shall be easily accessible and installed in the sections according to the system layout and separate installation guidelines issued by Ultra Fog.



NOTES:

Filling instruction :

1. Connect the test hose with part no 20000922-101 on item 2.
2. Open the connection between nozzle and pos 7 for air drain.
3. Use a small pump to fill the pipe with temper-40. Fill the pipe until temper-40 comes out between the nozzle and pos 7.
4. Seal the connection between nozzle and pos 7 dismount the test hose.
5. The filling connection item 2 must be easy to reach so the pipe can be filled.
6. Item 12 shall be placed close to the nozzle.

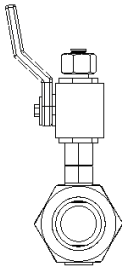
Important:

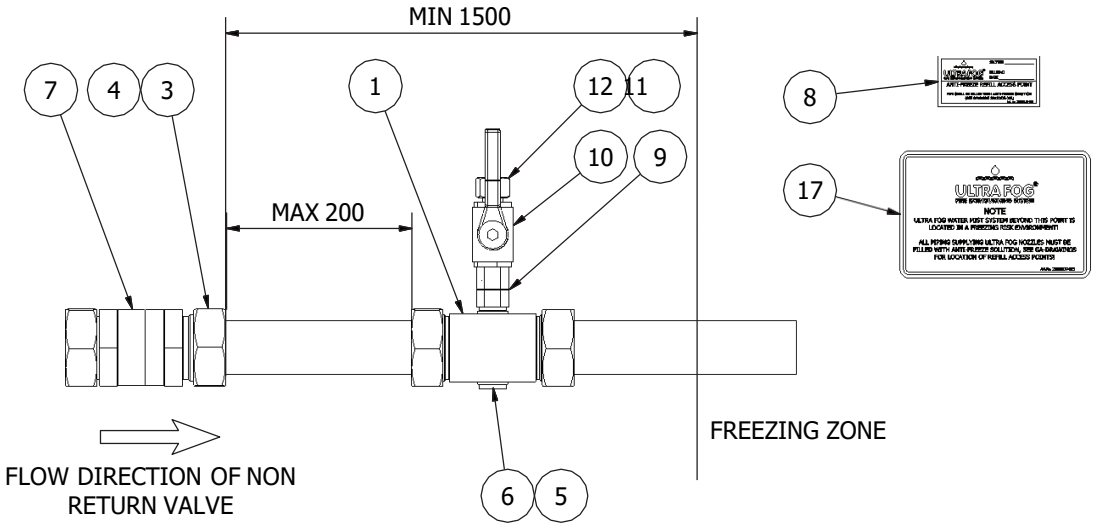
1. Items 2, 3, 4, 10, 11 and 12 are included in the freezing pipe device.
2. The pipe shall be filled with temp-40°c (item 11).

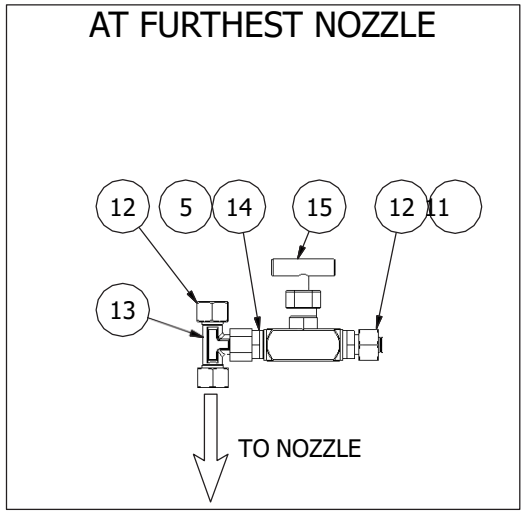
-

6.1 Freezing Temp Device Kit 12

20020625-101-QM







NOTES:

Filling instruction :

1.Remove the plug (item 11 and 12) at the top of the ball valve (item 10). Connect a hose to item 10 and open it.

2.Open the flush valve (item 15) at the furthest nozzle and remove the plug (item 11 and 12) from the valve.

3.Use a small pump to fill the pipe with anti-freeze solution. Fill the pipe until solution comes out from the flush valve (item 15) from step 2.

4.Close the flush valve (item 15) and the ball valve (item 10). Remove the hose from item 13 and replace the plugs at both valves (item 11 and 12).

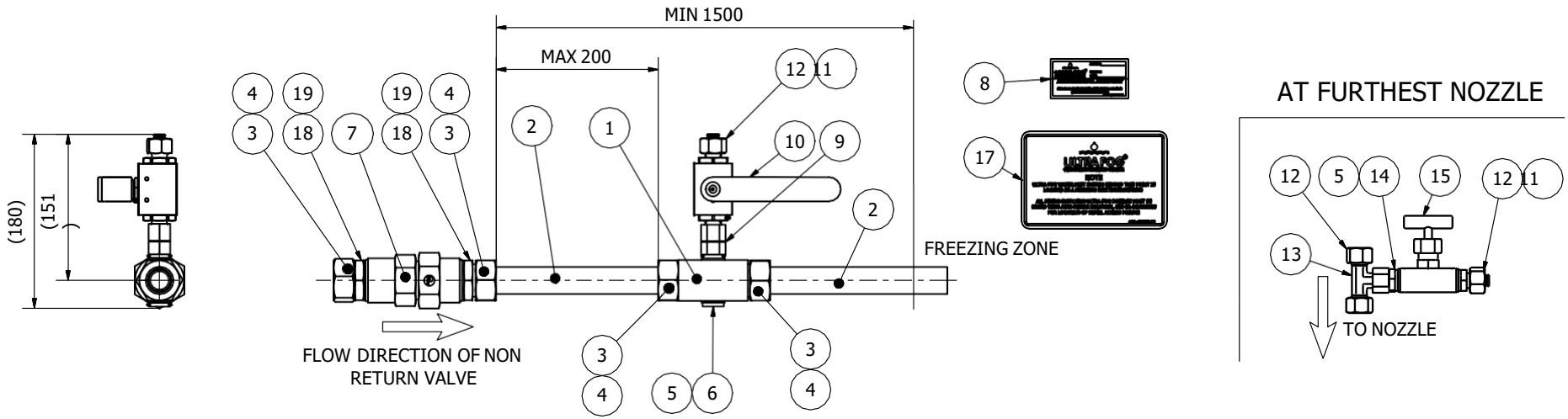
Important:

1. The filling connection item 10 must be easy to reach so the pipe can be filled.

2. Item 8 should be placed close to the refill access point.

3.Item 17 should be placed clearly visible in strategic positions such as doorways bordering the freeze risk zone.

4. The pipe shall be filled completely with an anti-freeze solution (not included!).



NOTES:

Filling instruction :

1.Remove the plug (item 11 and 12) at the top of the ball valve (item 10). Connect a hose to item 10 and open it.

2.Open the flush valve (item 15) at the furthest nozzle and remove the plug (item 11 and 12) from the valve.

3.Use a small pump to fill the pipe with anti-freeze solution. Fill the pipe until solution comes out from the flush valve (item 15) from step 2.

4.Close the flush valve (item 15) and the ball valve (item 10). Remove the hose from item 13 and replace the plugs at both valves (item 11 and 12).

Important:

1. The filling connection item 10 must be easy to reach so the pipe can be filled.

2. Item 8 should be placed close to the refill access point.

3.Item 17 should be placed clearly visible in strategic positions such as doorways bordering the freeze risk zone.

4.The pipe shall be filled completely with an anti-freeze solution (not included!).

Canister size*	
Height	450 mm
Wide	260 mm
Depth	300 mm
Volume	25 l

*max dimensions given

NOTES:

Antifreeze liquid to use in applications in areas with risk of freezing up to -40 °C.

XXX SEK

6.4 Antifreeze Liquid -40C (1L)

1001029

7. OTHER COMPONENTS

Canister size*	
Height	450 mm
Wide	260 mm
Depth	300 mm
Volume	25 l

*max dimensions given

NOTES:

Antifreeze liquid to use in applications in areas with risk of freezing up to -40 °C.

XXX SEK

7.1 Antifreeze Liquid -40C (1L)

1001029

Content of the kit:

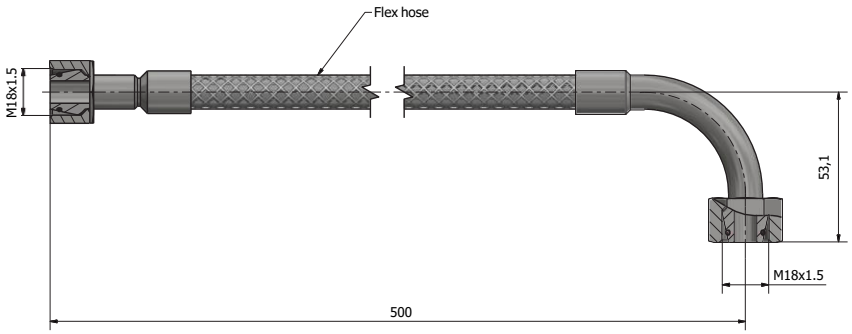
1. 1001014 – Box
2. 20000922-101 - Section Valve TEST ADAPTER
3. 20101005-002 - Bulb Nozzle Tool (if bulb nozzle supplied)
4. 1002032 Open Nozzle Tool (if open nozzle supplied)

Spare amount of nozzles according to rules or project specifi

XXXX SEK

7.2 Spare Part Kit With Nozzle Tools

1001014-QM



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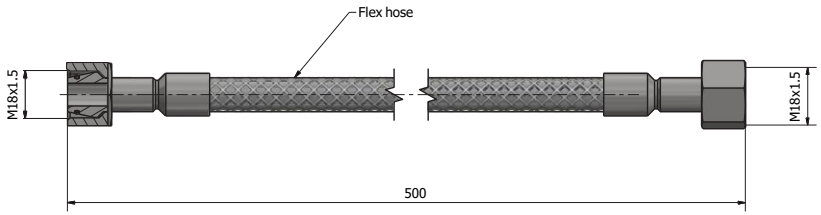
7.3 Flexible Hose 90° 500Mm 12L/12L Female/ Female 150Bar DN10

20040219-011



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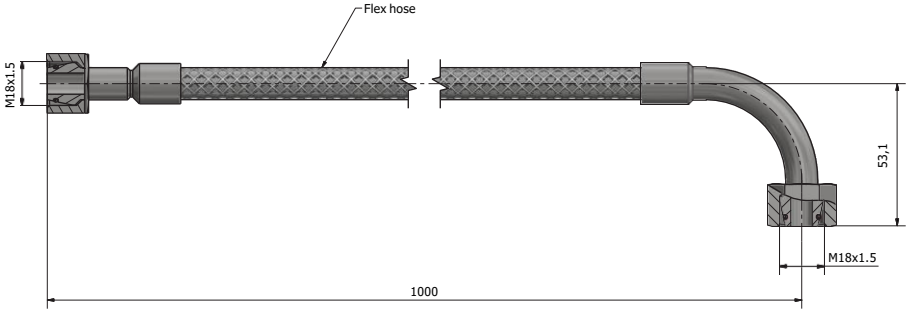
7.4 Flexible Hose Straight 500Mm 12L/12L Female/Female 150Bar DN10

20040219-012



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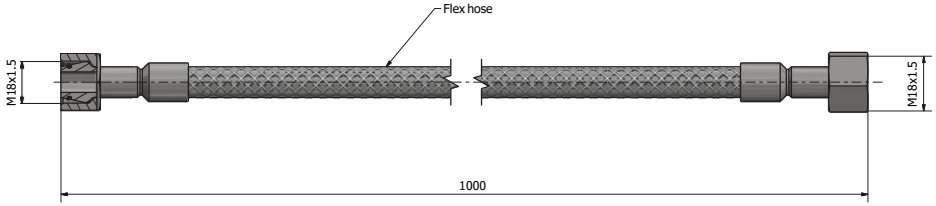
7.5 Flexible Hose 90° 1000mm 12L_12l Female/ Female 150Bar DN10

20040219-013



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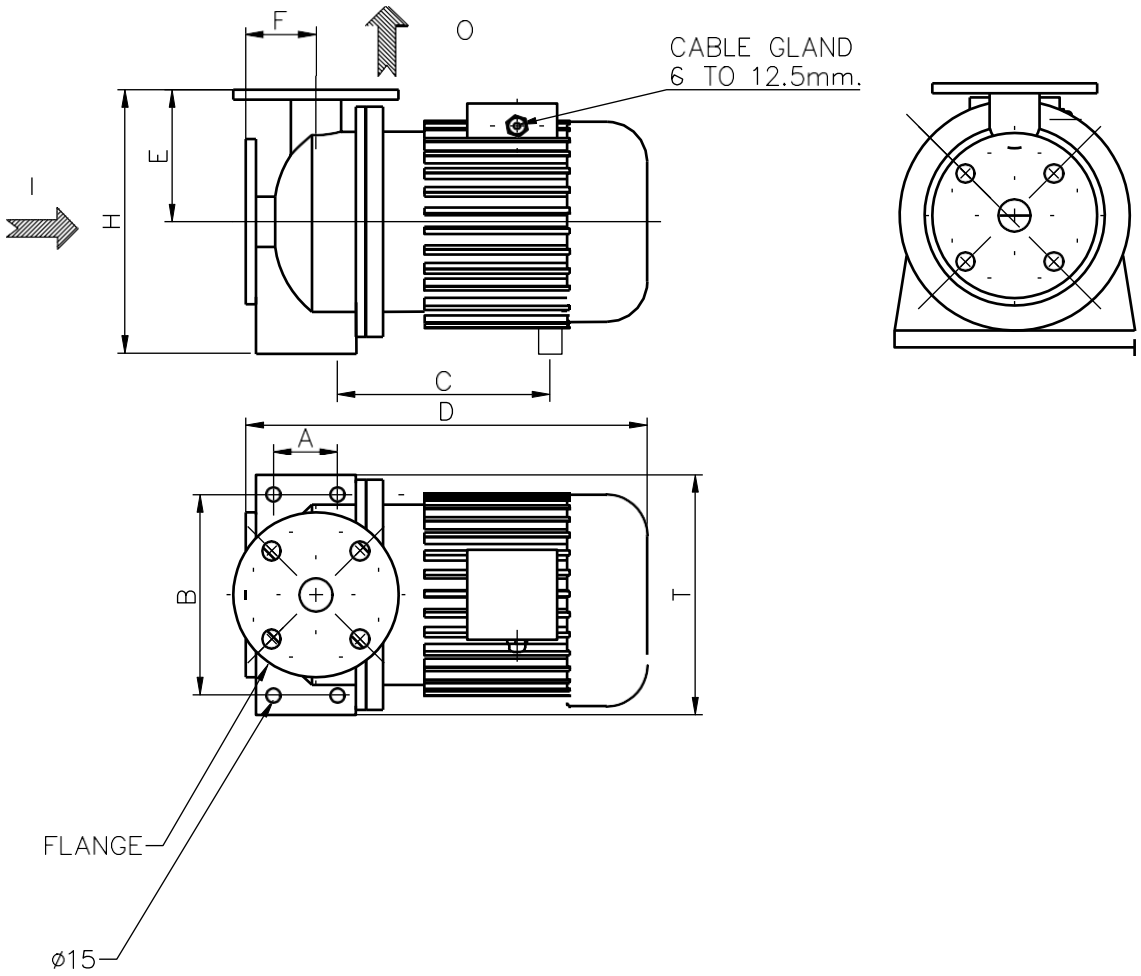
7.6 Flexible Hose Straight 1000mm 12L/12L Female/Female 150Bar DN10

20040219-014



HIGH PRESSURE UNIT FEEDER PUMPS		PRICE
1000802	HPU FEEDER PUMP 200 l/min	xx.xxx SEK
1000809	HPU FEEDER PUMP 300 l/min	xx.xxx SEK
1000810	HPU FEEDER PUMP 400 l/min	xx.xxx SEK
1000811	HPU FEEDER PUMP 500 l/min	xx.xxx SEK
1000812	HPU FEEDER PUMP 800 l/min	xx.xxx SEK
1000813	HPU FEEDER PUMP 1000 l/min	xx.xxx SEK

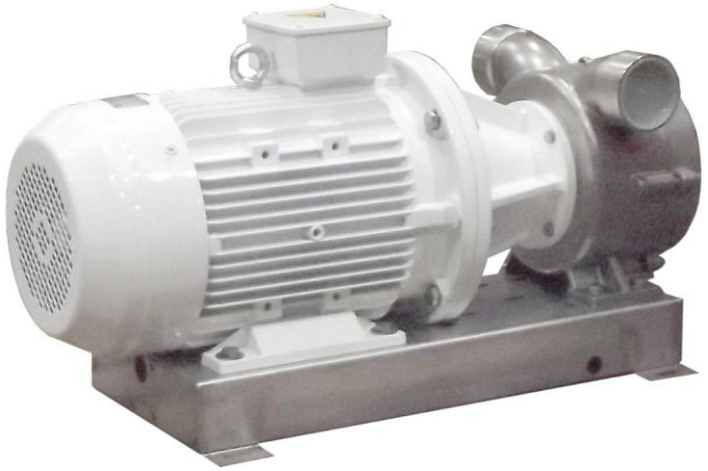
7.8 High Pressure Unit Feeder Pump

10008XX-QM

	SELF PRIMING BILGE FEEDER PUMPS	PRICE
100600-QM	SELF PRIMING BILGE FEEDER PUMP 0-50 l/min	
100601-QM	SELF PRIMING BILGE FEEDER PUMP 50-120 l/min	
100602-QM	SELF PRIMING BILGE FEEDER PUMP 120-190 l/min	
100603-QM	SELF PRIMING BILGE FEEDER PUMP 190-270 l/min	
100604-QM	SELF PRIMING BILGE FEEDER PUMP 270-400 l/min	

7.9 Self Priming Bilge FeederPump

1006XX-QM



	SELF PRIMING HPU FEEDER PUMPS	PRICE
100700-QM	SELF PRIMING HPU FEEDER PUMP 0-100 l/min	
100701-QM	SELF PRIMING HPU FEEDER PUMP 100-300 l/min	
100702-QM	SELF PRIMING HPU FEEDER PUMP 300-600 l/min	

7.10 Self Priming High Pressure Unit Feeder Pumps

1007XX-QM

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