

ZMP: HIGH PRESSURE LENTICULAR FILTER HOUSING!

ZMP series has been designed to propose a product suitable for being used in Food & Beverage market and in general in sanitary industry. The characteristics and building flexibility make the ZMP series the optimal proposal for price and quality of product.

DESIGN

Filter ZMP has been designed in accordance to EN 13445 rule. Dimensions 12" and 16", flat connection (standard) or bayonet, bowls for 1/2/3/4 modules.

Filter housing design pressure range: $-1 \div 8$ bar; temperature range $-20 \div 150^{\circ}\text{C}$. ZMP filter housing design is for not dangerous fluid and could be supplied in II and III CE 97/23 PED category basing on filter dimension.

The filter housing standard external surface finishing is mechanical polishing, same solution is for internal surface finishing with a roughness of $\text{RA} < 0.8\mu$. On request it's possible also also electro-polishing as surface finishing.

CONSTRUCTION MATERIALS

ZMP wetted parts, are built in Stainless Steel AISI 316L. Polypropylene material is used for Tighten Nut of internal set of flat version.

GASKETS MATERIALS

ZMP filter housings are extremely adaptable to several fluids. Gaskets can be supplied in many kind of materials depending on the application. The standard gaskets are in Silicone FDA Approved.

ATEX

ZMP filter housing is ATEX certified. It doesn't require additional certification costs. The user manual shows all the ATEX rules information.

CERTIFICATES

As etched on the data label, ZMP filter housings series have been designed under CE 97/23 PED. Alteco, on demand, is able to supply all the additional documentation you require.

FLANGED BENDS

If you choose heavy connections (e.g. FLANGES ANSI 150lb), bends are fixed on the baseplate by a flanged closure system. In this way the filter housing bends are exposed to stress caused by the filtration plant, this system closure allows more resistance.

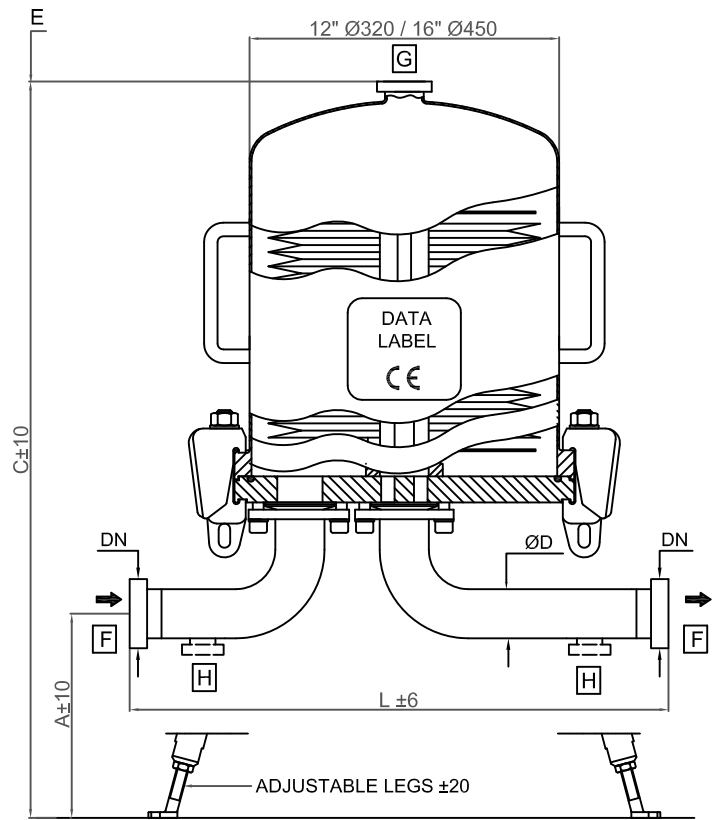
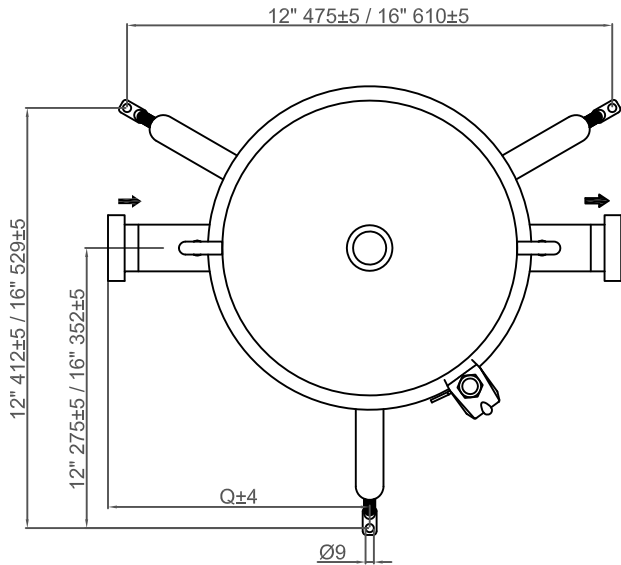
VENTS, DRAINS, IN/OUT CONNECTIONS FLEXIBILITY

Vents, drains and IN/OUT connections are fully adaptable. A wide range of vents, drains and IN/OUT connections can satisfy all your needs avoiding any kind of adapters. The standard connection for Vent and Drains of the ZMP series is Clamp 1.5", on demand it's possible to apply also a DIN 11851 DN25 connection.



| AVT [®] FILTER HOUSING | |
|---|--------------------------------|
| PART NUMBER | ZMP |
| MODEL | ZMP |
| TYPE | |
| DIAMETER (inch) x NO. MODULES | "N" |
| CATEGORY CE 97/23 | "M" |
| VOLUME LITRES (V) | "V" |
| PRESSURE(PS) min-max at TS= $-20 \div 40^{\circ}\text{C}$ bar | $-1 \div 8$ |
| PRESSURE(PS) min-max at TS= $-20 \div 150^{\circ}\text{C}$ bar | $-1 \div 4$ |
| TEST PRESSURE(PT) bar | 16 |
| DESIGN TEMPERATURE (TS) min-max | $-20 \div 150^{\circ}\text{C}$ |
| FLUID GROUP (PED CE 97/23) | 2 |
| PHISICAL STATE | LIQUID / GAS |
| VESSEL MATERIAL | 316L / 1.4404 |
| YEAR OF MANUFACTURE | |
| VESSEL NUMBER | |
| ATEX CLASSIFICATION | II 2 GD IIC |
| ATEX CERTIFICATION | 04.01 EX.02-X |
| SEE USER MANUAL FOR MAX WORKING PRESSURE WITH NOT DANGEROUS GAS IN ACCORDANCE TO CE 97/23 | |
| XXXX | |

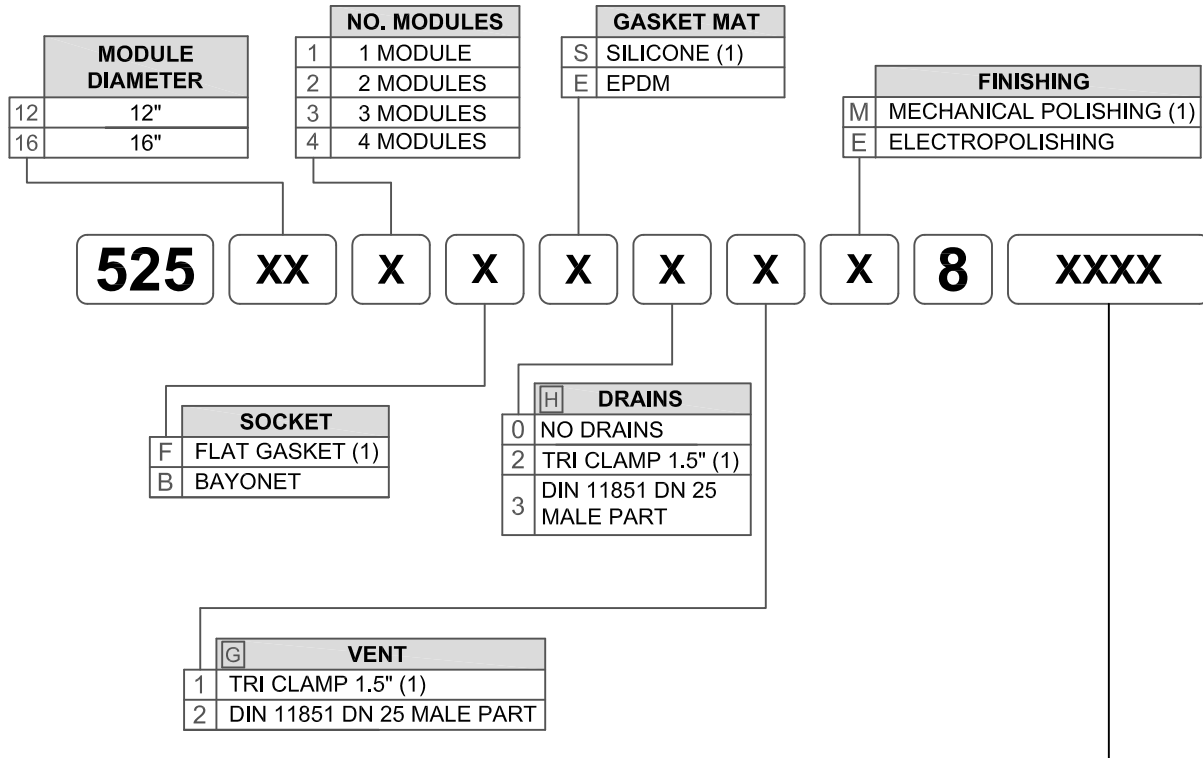
DATA LABEL EXAMPLE



DIMENSIONAL DATA

| | 12" | | | | 16" | | | |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| | ZMP 121 | ZMP 122 | ZMP 123 | ZMP 124 | ZMP 161 | ZMP 162 | ZMP 163 | ZMP 164 |
| MODEL | ZMP 121 | ZMP 122 | ZMP 123 | ZMP 124 | ZMP 161 | ZMP 162 | ZMP 163 | ZMP 164 |
| MODULES DIAMETER x NUMBER (N) | 12"x1 | 12"x2 | 12"x3 | 12"x4 | 16"x1 | 16"x2 | 16"x3 | 16"x4 |
| PED CATEGORY (M) | II | II | II | II | II | II | III | III |
| C mm | 970 | 1240 | 1520 | 1820 | 970 | 1240 | 1540 | 1840 |
| E mm | 460 | 730 | 1010 | 1310 | 460 | 730 | 1030 | 1330 |
| TOTAL VESSEL VOLUME litres (V) | 32 | 53 | 74 | 96 | 63 | 105 | 147 | 191 |
| BOWL WEIGHT kg | 11 | 16 | 20 | 25 | 21 | 30 | 40 | 50 |
| TOTAL NET WEIGHT kg | 44 | 50 | 58 | 63 | 75 | 86 | 99 | 111 |
| PACKAGING SIZE 12" CM 50x51x | 90 | 115 | 140 | 165 | - | - | - | - |
| PACKAGING SIZE 16" CM 63x64x | - | - | - | - | 100 | 125 | 150 | 175 |
| TOTAL WEIGHT PACKED kg | 49 | 56 | 65 | 70 | 81 | 93 | 107 | 119 |

IF VENT=FLANGE C=C+30 E=E+30

PART NUMBERS


| INLET - OUTLET CONNECTIONS | | DN | ØD | A | 12" | | 16" | | 12" | | 16" | |
|-----------------------------|------|------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | Q | L | Q | L | Q | L | Q | L |
| [F] WELD ASME BPE (1) | W038 | 1.5" | 38.1x1.65 | 373 | 260 | 480 | 300 | 585 | 185 | 405 | 225 | 510 |
| | W051 | 2.0" | 50.8x1.65 | 345 | 280 | 505 | 320 | 605 | 213 | 438 | 253 | 538 |
| [F] DIN 11851 MALE PART (1) | D040 | 40 | 38.1 | 373 | 293 | 546 | 333 | 651 | 218 | 471 | 258 | 576 |
| | D050 | 50 | 50.8 | 345 | 315 | 575 | 355 | 675 | 248 | 508 | 288 | 608 |
| [F] CLAMP (1) | T015 | 1.5" | 38.1 | 373 | 273 | 505 | 313 | 611 | 197 | 430 | 237 | 535 |
| | T020 | 2.0" | 50.8 | 345 | 293 | 530 | 333 | 631 | 226 | 463 | 266 | 563 |

WITH DRAINS

WITHOUT DRAINS

| INLET - OUTLET CONNECTIONS | | DN | ØD | A | 12" | | 16" | | 12" | | 16" | |
|----------------------------|------|-------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | Q* | L* | Q* | L* | Q | L | Q | L |
| [F] FLANGES EN 1092 | E032 | 32 | 42.4x3 | 363 | 311 | 561 | 351 | 671 | 250 | 501 | 321 | 641 |
| | E040 | 40 | 48.3x3 | 384 | 320 | 580 | 360 | 690 | 260 | 520 | 330 | 660 |
| [F] FLANGES ANSI 150 lb | A125 | 1.25" | 42.4x3 | 363 | 311 | 561 | 351 | 671 | 250 | 501 | 321 | 641 |
| | A150 | 1.5" | 48.3x3 | 384 | 320 | 580 | 360 | 690 | 260 | 520 | 330 | 660 |
| | A200 | 2.0" | 48.3x3 | 384 | 320 | 580 | 360 | 690 | 260 | 520 | 330 | 660 |

WITH DRAINS

WITHOUT DRAINS

* WITH FLANGES DRAINS ADD. 40mm TO "L" AND "Q" DIMENSION

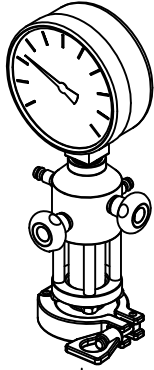
(1) MEANS STANDARD VERSION

ACCESSORIES FOR ZMP RANGE (12 - 16 CARTRIDGES)

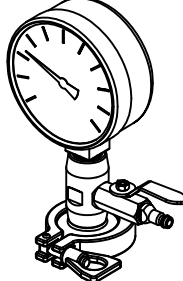
1 SANITARY VALVE
601300010



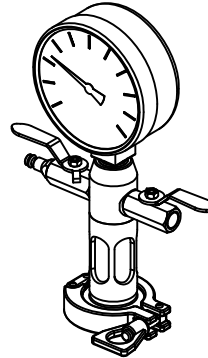
2 SANITARY VALVES
+ SIGHT GLASS
601310010



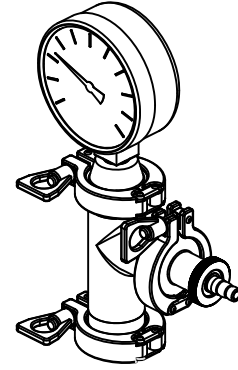
1 BALL VALVE
601700010



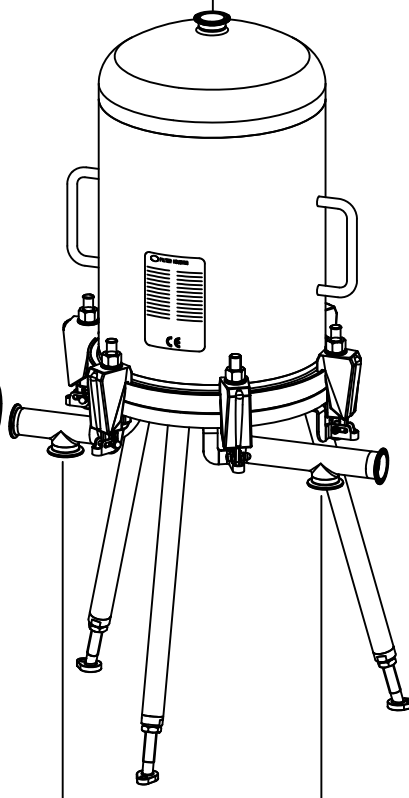
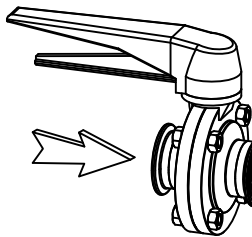
2 BALL VALVES
+ SIGHT GLASS
601719010



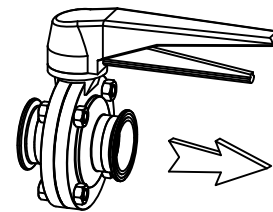
1 SANITARY VALVE
DIAPHRAGM PRESS. GAUGE
601349010



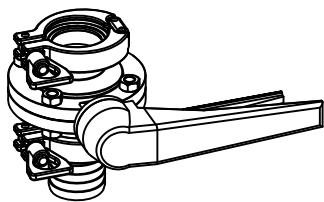
BUTTERFLY VALVE



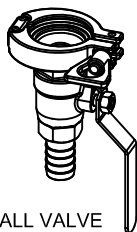
BUTTERFLY VALVE



BUTTERFLY VALVE
602320150



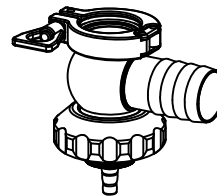
BALL VALVE
602300150



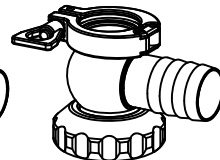
SAMPLING TEST
602310150



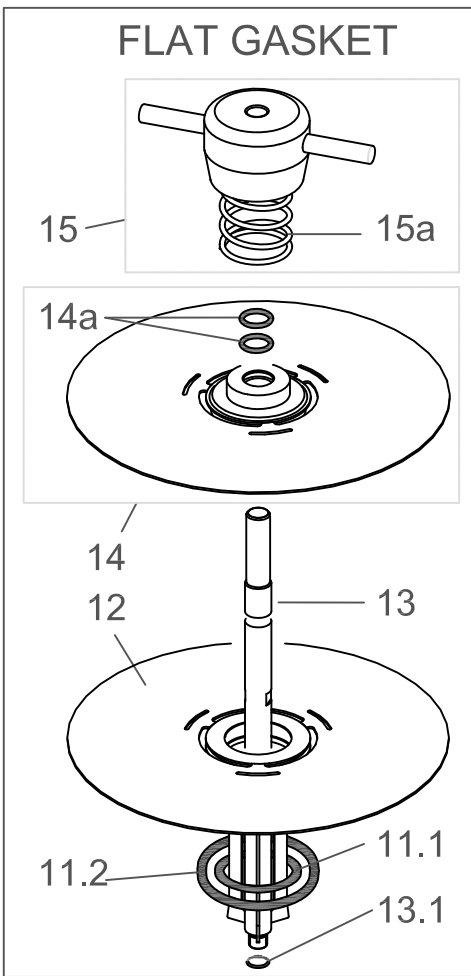
ANGLE VALVE + SAMPLING
20087



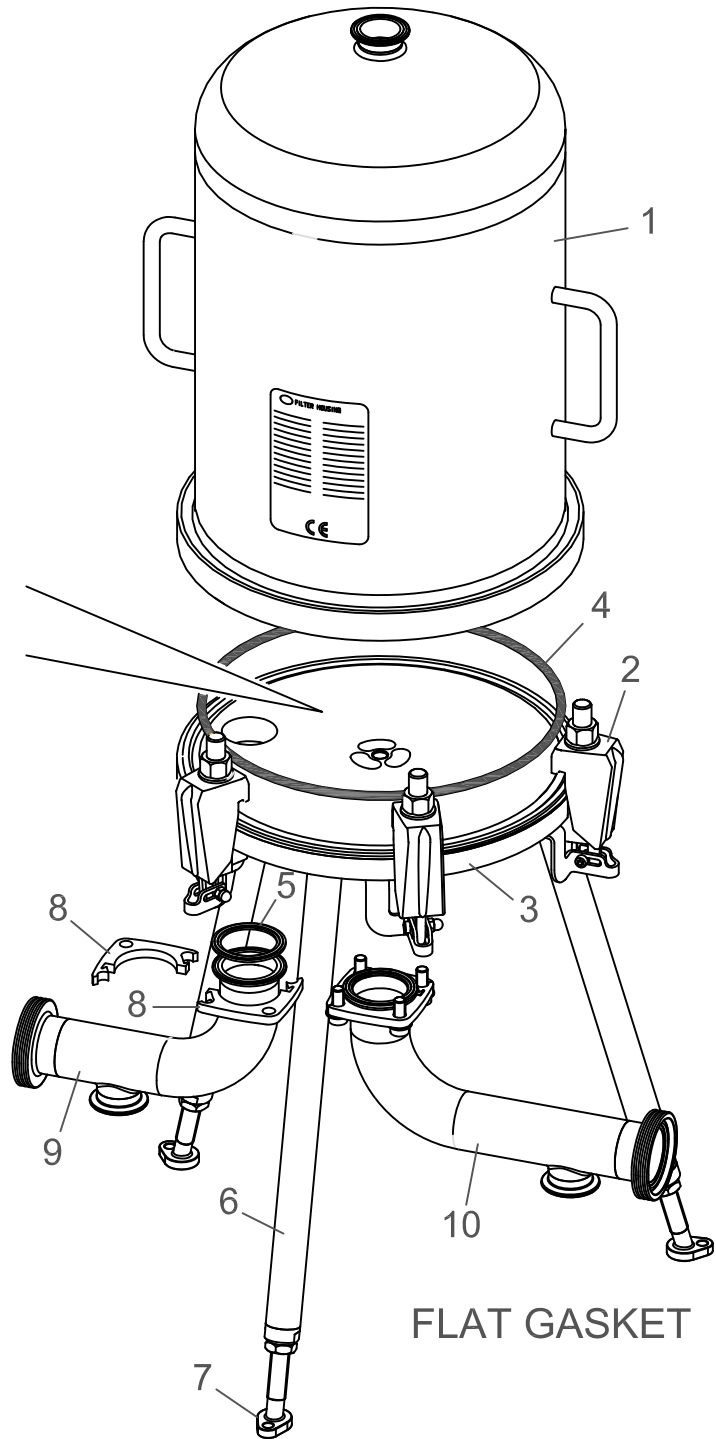
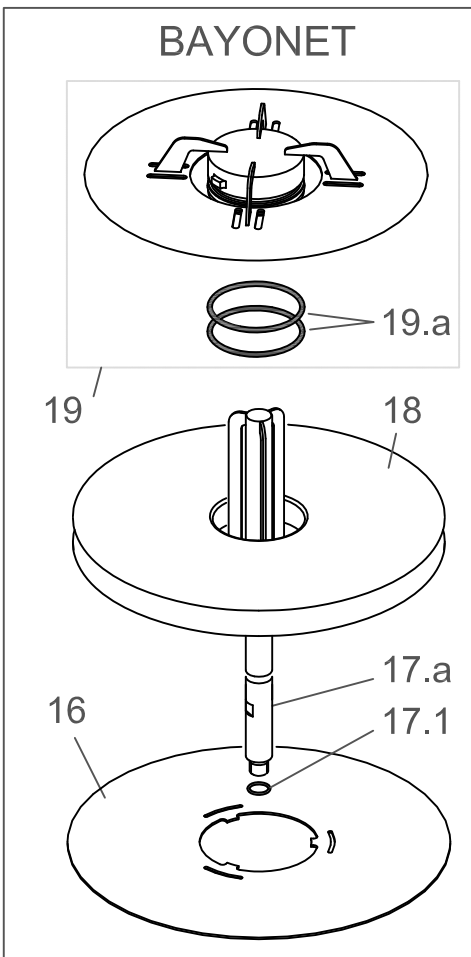
ANGLE VALVE
20085



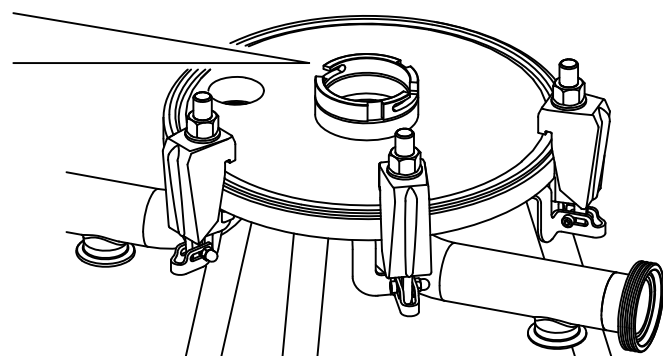
FLAT GASKET



BAYONET



FLAT GASKET



BAYONET

| POSITION | DESCRIPTION | MATERIAL | PART. NO. 12" | PART. NO. 16" | Q.TY |
|----------|------------------------|----------------------------------|---------------|---------------|------|
| 1 | HOUSING BOWL | AISI 316L | -- | -- | 1 |
| 2 | 2.a | BOLT CLAMP M16 | AISI 316Ti | 1812C | 5 |
| | 2.b | BOLT CLAMP M16 | AISI 316Ti | -- | 8 |
| 3 | PLATE | AISI 316L | 20186 | 20187 | 1 |
| 4 | 4.a | O-RING ø7.00 ID=304.1 | SILICONE* | 80744S | 1 |
| | 4.b | O-RING ø7.00 ID=443.4 | SILICONE* | -- | 1 |
| 5 | GASKET CLAMP 2" | PTFE | 80022P | 80022P | 2 |
| 6 | LEG | AISI 304 | 1578 | 1578 | 3 |
| 7 | FOOT | AISI 304 | 1957 | 1957 | 3 |
| 8 | BEND FLANGE | AISI 304 | 1563 | 1563 | 3 |
| 9 | INLET BEND | AISI 316L | -- | -- | 1 |
| 10 | OUTLET BEND | AISI 316L | -- | -- | 1 |
| 11 | 11.1 | O-RING ø5.34 ID=53.34 | FEP | 84727P | 1 |
| | 11.2 | O-RING ø5.34 ID=69.22 | FEP | 84726P | 1 |
| 12 | LOWER PROTECTION PLATE | AISI 316L | 84707 | 84725 | 1 |
| 13 | 13.1 | O-RING ø1.78 ID=14 | PTFE | 81036P | 1 |
| | 13.a | CENTER POST 1 MODULE | AISI 316L | 20025 | 1 |
| | 13.b | CENTER POST 2 MODULE | AISI 316L | 20026 | 1 |
| | 13.c | CENTER POST 3 MODULE | AISI 316L | 20027 | 1 |
| 14 | 14 | UPPER PLATE WITH O-RING | AISI 316L | 20145 | 1 |
| | 14.a | O-RING ø3.53 ID=18.64 | FEP | 80102P | 2 |
| 15 | 15 | PP TIGHTEN NUT WITH SPRING | -- | 81080 | 1 |
| | 15.a | SPRING | AISI 316L | 1543 | 1 |
| 16 | LOWER PROTECTION PLATE | AISI 316L | 20121 | 20123 | 1 |
| 17 | 17 | O-RING ø1.78 ID=14 | PTFE | 81036P | 1 |
| | 17.a | CENTER POST 3 - 4 MODULES | AISI 316L | 20193 | 1 |
| 18 | 18.a | INTERMEDIATE PLATE FOR 2 MODULES | AISI 316L | 20351 | 1 |
| | 18.b | INTERMEDIATE PLATE FOR 3 MODULES | AISI 316L | 20351 | 2 |
| | 18.c | INTERMEDIATE PLATE FOR 4 MODULES | AISI 316L | 20351 | 3 |
| 19 | 19 | UPPER PROTECTION PLATE | AISI 316L | 20138 | 1 |
| | 19.a | O-RING ø3.53 ID=66.68 | SILICONE* | 80123S | 2 |

* ASK FOR AVAILABLE MATERIALS

** THE PART NUMBER OF INLET-OUTLET BENDS DEPEND ON THE FILTER HOUSING PART NUMBER