

Spare Parts List

Mobius® TFF 80 System

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.

Spare Parts

To help you select and manage the spare parts required for your system, our experts have performed a risk assessment to determine which parts to keep in stock.

The risk assessment is based on our experience; each customer must perform their individual risk assessment for their process, to check the alignment with our strategy and review the stock requirements accordingly.

As a result of this risk assessment, we defined 3 categories of spare parts:

| Type of parts | Description | Stock recommendation |
|------------------------------|--|------------------------------|
| Preventive maintenance parts | <p>These are parts that are subject to wear and tear and that we recommend replacing on a regular basis. Under average usage conditions, these parts should be replaced at least once per year. A risk assessment based on the specific system usage and production conditions may result in a requirement to replace some or all of these parts more frequently.</p> <p>Not replacing wear and tear parts as recommended can impact system functionality and may result in system shutdown.</p> | 1 part per unit |
| Critical parts | These parts have been identified as most critical to avoiding system downtime and are recommended to be kept in stock for immediate availability. | 1 part per unit |
| All other parts | All other individual parts. | Risk-based customer decision |

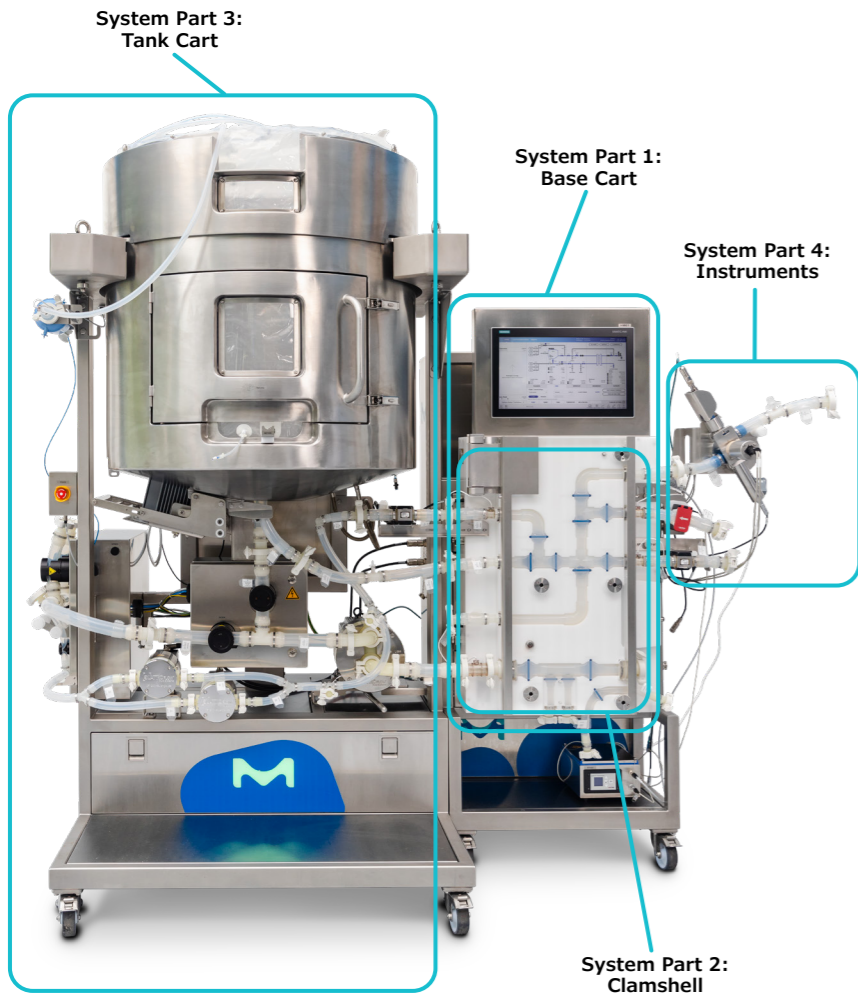
Based on our risk analysis, preventive maintenance and critical spare parts are essential to keep your equipment running. We recommend keeping preventive maintenance and critical spare parts in stock. Make sure you order the preventive maintenance spare part "Pump shaft bearing cap" before service execution and flexware service kit.

For additional information, please visit: sigmaaldrich.com

Ordering information for Flexware® assemblies service kits.

| Catalogue Number | PMFXWKITFF80 | FXWTF80PMP | FXWTF80200NS1 | FXWTF80500NS1 |
|--------------------|---|---|--|--|
| Description | Mobius® TFF 80 system Flexware® assembly service base kit | Mobius® TFF 80 system Flexware® assembly service pump kit | Mobius® TFF 80 system Flexware® assembly service 200 L kit | Mobius® TFF 80 system Flexware® assembly service 500 L kit |
| Comment | Base kit | Pump kit | Kit for 200L | Kit for 500 L |
| Kit Content | TFF80FEEDIN | DISPUMP3 | TFF80PM200LSMP | TFF80PM500LSMP |
| | TFF80TRANFW | DISPUMP2 (2x) | TFF80FEEDLN | TFF80FEEDLN |
| | TFF80PMTRANM | TFF80PMTRANLN | TFF80CSFEED | TFF80CSFEED |
| | TFF80CMSBYPASS | | TFF80CSRET | TFF80CSRET |
| | TFF80PMLINE (2x) | | TFF80RETSMP | TFF80RETSMP |
| | | | TFF80FILTSUC1 | TFF80FILTSUC1 |

Note: Service kits to be ordered separately prior the qualification services (FAT or IQ/OQ or Full Test Package) or yearly maintenance services included in the System Service Reliance Plans. Please order one base kit, one pump kit, and one kit corresponding to your tank size (200 L or 500 L).

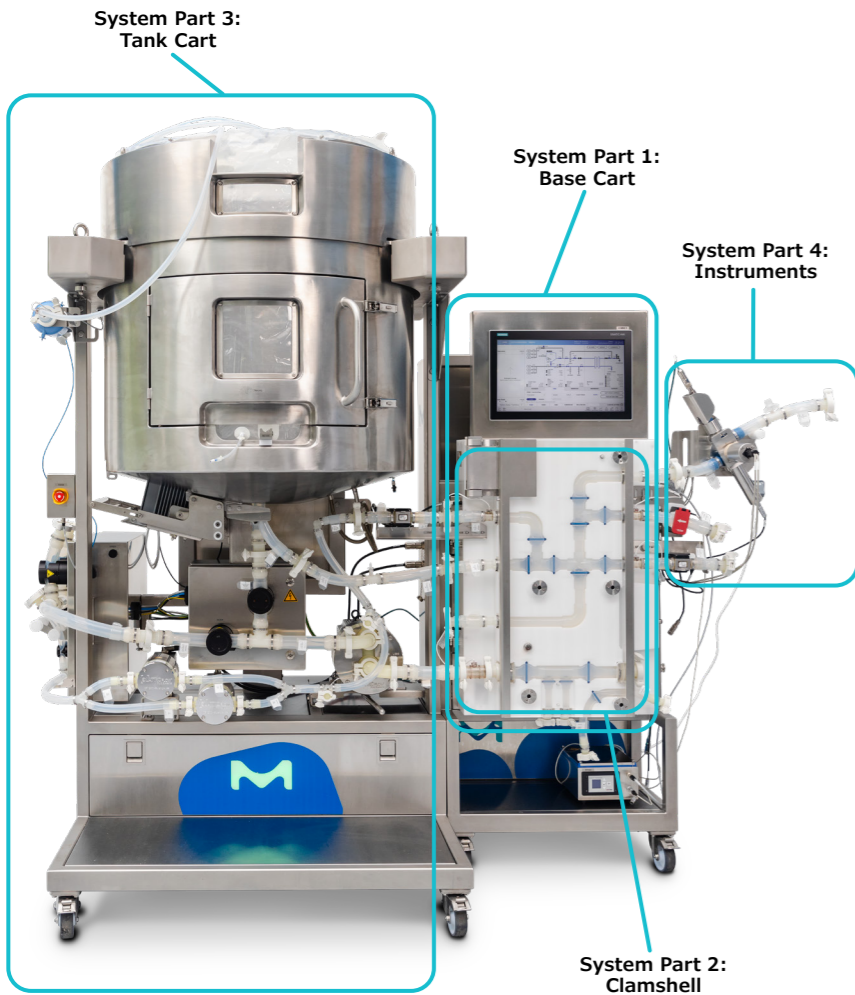


System Part 5:
Cassette Holder

| Item | System Part | Catalogue Number | Description | PM/ Critical/ Other | Field service required* | Frequency |
|------|-------------|-------------------|---|---------------------------|-----------------------------|--------------------------------------|
| #1 | 1 | SPKGENPNE001 | Festo Filter cartridge MS4-LFP-E | PM | No | Every 12 months |
| #2 | 1 | SPKGENELC045 | Rittal filter mat SK 3171.100 pack of 5 | PM | No | Every 12 months |
| #3 | 4 | SPKMBSMTSEN001 | UV lamp | PM | No | Every 12 months |
| #4 | 2 | SPKMBSMTBASE015 | Set of balls and o-rings | PM | No | Every 6 months |
| #5 | 3 | SPKMBSMTPUMP013 | Smart, pump QF1200-5, shaft bearing cap unit | PM | For installation | Every 1000 h or at least once a year |
| #6 | 3 | SPKGENPMP006 | Pump QF4400-HT-6 shaft bearing cap unit | PM | For installation | Every 1000 h or at least once a year |
| #7 | 3 | SPKGENELC046 | Rittal filter mat SK 3322.700 pack of 5 | PM | No | Every 12 months |
| #8 | 1 | SPKMBSMTBASE038 | Power supply, 100-230 VAC/24 VDC, 10 A | Critical | No | As required |
| #9 | 1 | Please contact us | Smartbase, PLC CPU with memory card | Critical | For installation and set-up | As required |
| #10 | 1/3 | SPKMBSMTBASE039 | I/O modules replacement kit 1 | Critical | For installation | As required |
| #11 | 1/2/3 | SPKMBSMTGEN008 | I/O modules replacement kit 2 | Critical | For installation | As required |
| #12 | 2/3 | SPKMBSMTBASE026 | I/O modules replacement kit 1 | Critical | For installation | As required |
| #13 | 1 | SPKMBSMTBASE041 | Smartbase, PLC power supply | Critical | No | As required |
| #14 | 1 | Please contact us | Mobius® TFF 80 system HMI | Critical | For installation | As required |
| #15 | 1 | Please contact us | Mobius® TFF 80 system Manageable Switch | Critical | For installation | As required |
| #16 | 1 | SPKGEN003 | Ebox fan | Critical | No | As required |
| #17 | 1 | SPKMBSMTPCART006 | Pump skid, power supply, 100-240 VAC/48 VDC, 12.5 A | Critical | No | As required |
| #18 | 4 | SPKGENINS037 | Optek ACF60-SU-35 conductivity sensor | Critical | No | As required |
| #19 | 1 | SPKMBTFFAUT001 | Mobius® TFF 80 system CUBE67 BUS node Base cart | Critical | For installation | As required |
| #20 | 1 | SPKMBSMTBASE036 | Smartbase, HMI gaz module | Other | For installation | As required |
| #21 | 1 | SPKMBSMTBASE037 | Smartbase, HMI bearing & cap | Other | For installation | As required |
| #22 | 1/3 | SPKGEN001 | Lightning M | Other | No | As required |
| 25 | | SPKMBSMTGEN007 | Interconnection cables kit | Other | No | As required |
| 26 | | SPKMBPWCCCH | Power cord CH | Other | No | As required |
| 27 | | SPKMBPWCEU | Power cord EU | Other | No | As required |
| 28 | | SPKMBPWCJP | Power cord JP | Other | No | As required |
| 29 | | SPKMBPWCKR | Power cord KR | Other | No | As required |
| 30 | | SPKMBPWCNA | Power cord NA | Other | No | As required |
| 31 | | SPKMBPWCUK | Power cord UK | Other | No | As required |
| 32 | | SPKMBPWCCN | Power cord CN | Other | No | As required |
| #33 | 2 | SPKMBTFFAUT002 | Mobius® TFF 80 system CUBE67 BUS node Clamshell | Critical | For installation | As required |
| #34 | 2 | SPKMBSMTCS029 | Precision pressure regulator | Critical | For installation and set-up | As required |
| #35 | 2 | SPKMBTFFVLV001 | Clamshell NC/NO pinch valve 5/8 in | Critical | For installation | As required |
| #36 | 2 | SPKMBTFFVLV002 | Clamshell NC/NO pinch valve 1 in | Critical | For installation | As required |
| #37 | 2 | SPKMBTFFVLV003 | Clamshell NC/NO pinch valve 1-1/4 in | Critical | For installation | As required |
| #38 | 2 | SPKMBTFFVLV004 | Clamshell NC/NO pinch valve 3/4 in | Critical | For installation | As required |
| #39 | 2 | SPKMBTFFVLV005 | Clamshell NC/NO PCV pinch valve 1 in | Critical | For installation | As required |
| #40 | 2 | SPKMBTFFVLV006 | FESTO air solenoid valve 575271 | Critical | For installation | As required |
| #41 | 2/3 | SPKMBSMTCS024 | Clamshell, control valve kit | Critical | For installation | As required |
| 42 | | SPKMBSMTFLW007 | Flowmeter cable | Critical | No | As required |
| #43 | 2 | SPKGENINS018 | Krohne Flexmag 4050C 3/4 to 1 in Qmax 100 Lpm | Critical | No | As required |
| #44 | 2 | SPKGENINS010 | Pendotech® PT-75 transmitter | Critical | No | As required |
| #45 | 2 | SPKGENELC017 | PR pressure transmitter w/ display | Critical | For installation and set-up | As required |

Means that the part is illustrated

* Replacement and/or setup need to be made by a trained technician



System Part 5:
Cassette Holder

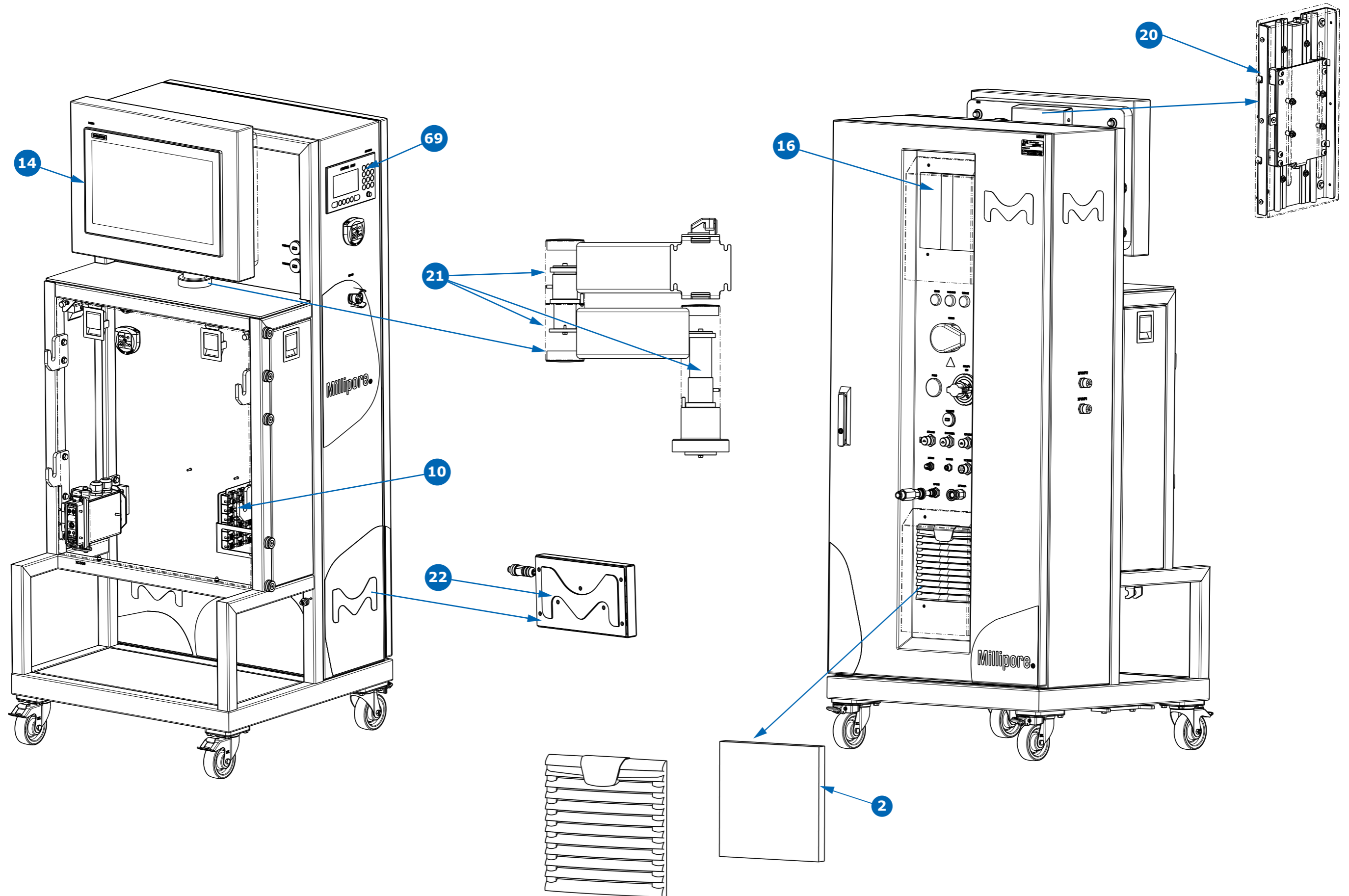
| Item | System Part | Catalogue Number | Description | PM/ Critical/ Other | Field service required* | Frequency |
|------|-------------|------------------|---|---------------------------|-----------------------------|-----------------|
| #46 | 2 | SPKGENINS019 | Emtec Clamp-On sensor 1 x 3/16 in | Critical | No | As required |
| #47 | 3 | SPKGENELC019 | Rittal ebox fan SK 3238.124 | Critical | No | As required |
| #48 | 3 | SPKGENELC020 | Danfoss VLT FC-302P5K5T5 3 x 380 V VFD | Critical | For installation and set-up | As required |
| #49 | 3 | SPKGENELC021 | Danfoss VLT FC-302P7K5T2 3 x 200 V VFD | Critical | For installation and set-up | As required |
| #50 | 3 | SPKGENELC022 | Murr 100-240 VAC/24 VDC 5 A Power supply | Critical | No | As required |
| #51 | 3 | SPKGENELC023 | Phoenix 100-240 VAC/48 VDC 10 A Power supp | Critical | No | As required |
| #52 | 3 | SPKMBSMTTANK024 | Mixer controler LPC-600-3 | Critical | For installation | As required |
| #53 | 3 | SPKMBTFFTNK001 | Levitronix® mixer controler LC325P | Critical | For installation | As required |
| #54 | 3 | SPKMBSMTTANK023 | Motor 600 W for agitator LPM-600-3 48 V | Critical | For installation | As required |
| #55 | 3 | SPKGENTNK001 | Levitronix® 1200 W mixer motor BSM-4.7-05 | Critical | For installation | As required |
| #56 | 3 | SPKGENINS020 | Mettler Toledo ACT350 PDX ethernet/IP | Critical | For installation and set-up | As required |
| #57 | 3 | SPKGENINS021 | Mettler Toledo module SLB615D 220 kg C3 M12 | Critical | For installation | As required |
| #58 | 3 | SPKGENINS022 | Mettler Toledo module SLB615D 550 kg C3 M12 | Critical | For installation | As required |
| #59 | 3 | SPKMBTFFPNE001 | TFF valve terminal MPA tank cart M5 | Critical | For installation | As required |
| #60 | 3 | SPKMBTFFPNE002 | TFF valve terminal MPA tank cart M3 | Critical | For installation | As required |
| #61 | 3 | SPKMBSMTMNFLO13 | Manifold, pneumatic valve kit | Critical | For installation | As required |
| #62 | 3 | SPKGENVLV007 | Acro pneumatic pinch valve 936 w/ sensor | Critical | For installation and set-up | As required |
| #63 | 3 | SPKGENVLV008 | PNP sensor for pinch valve 936 | Critical | For installation and set-up | As required |
| #64 | 3 | SPKGENINS015 | Hamilton® Arc Module SU pH1 | Critical | No | As required |
| #65 | 3 | SPKGENINS016 | Hamilton® Arc Module SU pH2 | Critical | No | As required |
| #66 | 3 | SPKGENINS023 | Pendotech® PT-2 transmitter | Critical | No | As required |
| #67 | 3 | SPKHW000016 | Temperature sensor 1 x PT100, M12 base—JUMO | Critical | No | As required |
| 68 | | SPKGENELC024 | TCU cable for lauda integral T & variocool | Critical | No | As required |
| #69 | 1/4 | SPKMBSMTTMTR001 | Converter C8480 kit | Critical | For installation and set-up | As required |
| 70 | | SPKMBSMTTMTR003 | Instrumentation cables kit | Critical | No | As required |
| #71 | 4 | SPKCBS000INS018 | Dual beam 254-280 nm UV sensor | Critical | No | As required |
| #72 | 4 | SPKMBSMTSEN007 | multi-use pH probe | Critical | No | As required |
| #73 | 5 | SPKPEHCYLHHP | Hydraulic cylinder 3.5" stroke | Other | For installation | As required |
| #74 | 5 | SPKPEHP202HHP | Lightweight hand pump Enerpac P202 | Other | For installation | As required |
| #75 | 5 | SPKPEHHYTIR0FL | FCUF-2530 : schell for hydraulic tie rod | Other | No | As required |
| 76 | 5 | SPKPEHOIL | Hydraulic oil viscosity 32 with USDA-H1 | PM | For installation | Every 12 months |
| #77 | 5 | MP0DCRKN0B | Clamp rod knob | Other | No | As required |
| #78 | 5 | SPKGENINS024 | Bourdon MEX-D50K35 pressure gauge | Other | For installation | As required |
| #79 | 5 | SPKMBTFFHLD001 | CMS holder linear bearing kit | Critical | No | As required |
| #80 | 5 | SPKMBTFFHLD002 | CMS holder guiding rod support | Other | No | As required |
| #81 | 5 | SPKMBTFFHLD003 | Pellicon 2 gaskets 10-pack | Other | No | As required |

Means that the part is illustrated

* Replacement and/or setup need to be made by a trained technician

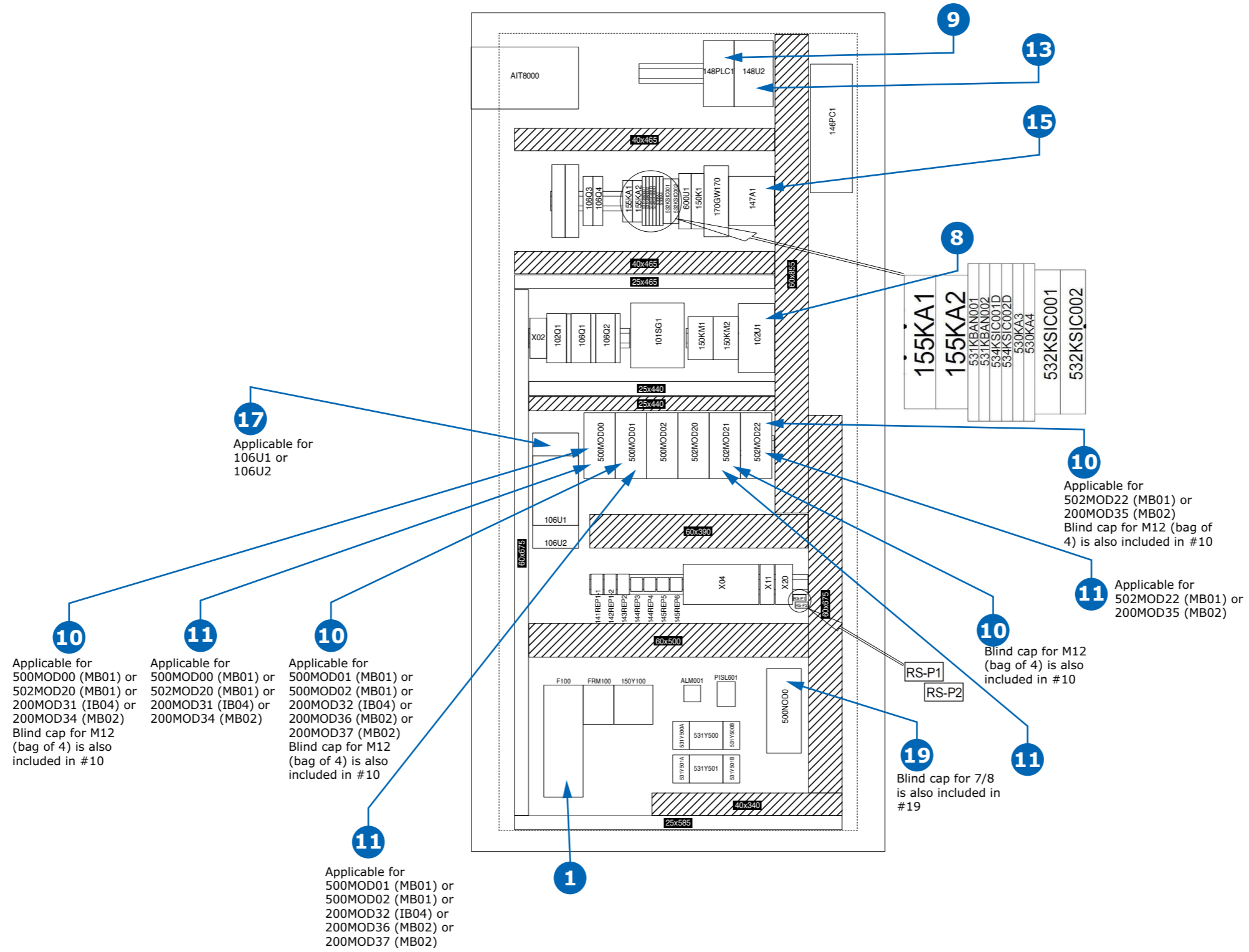
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Base cart



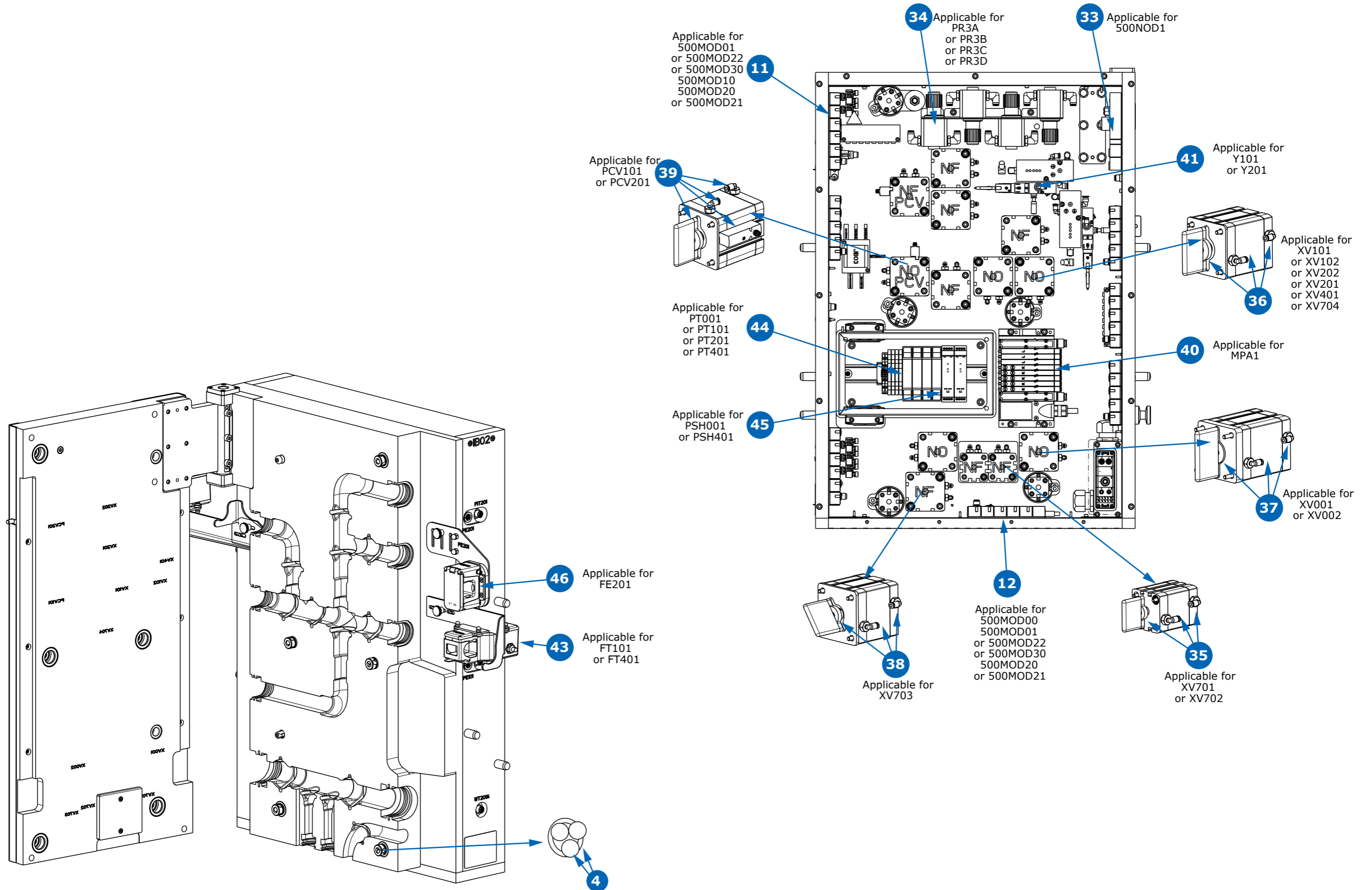
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Base cart—electrical box



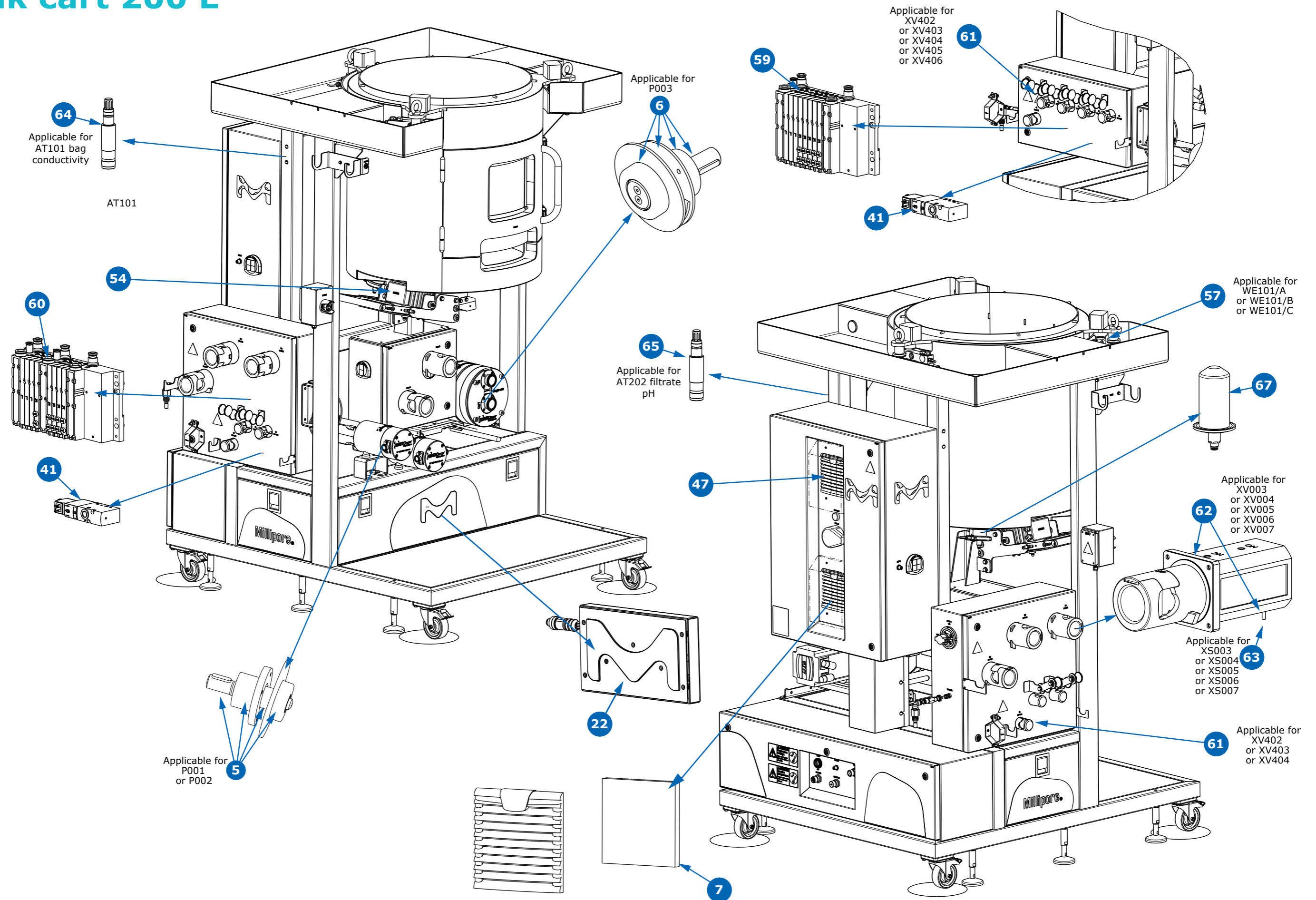
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Clamshell



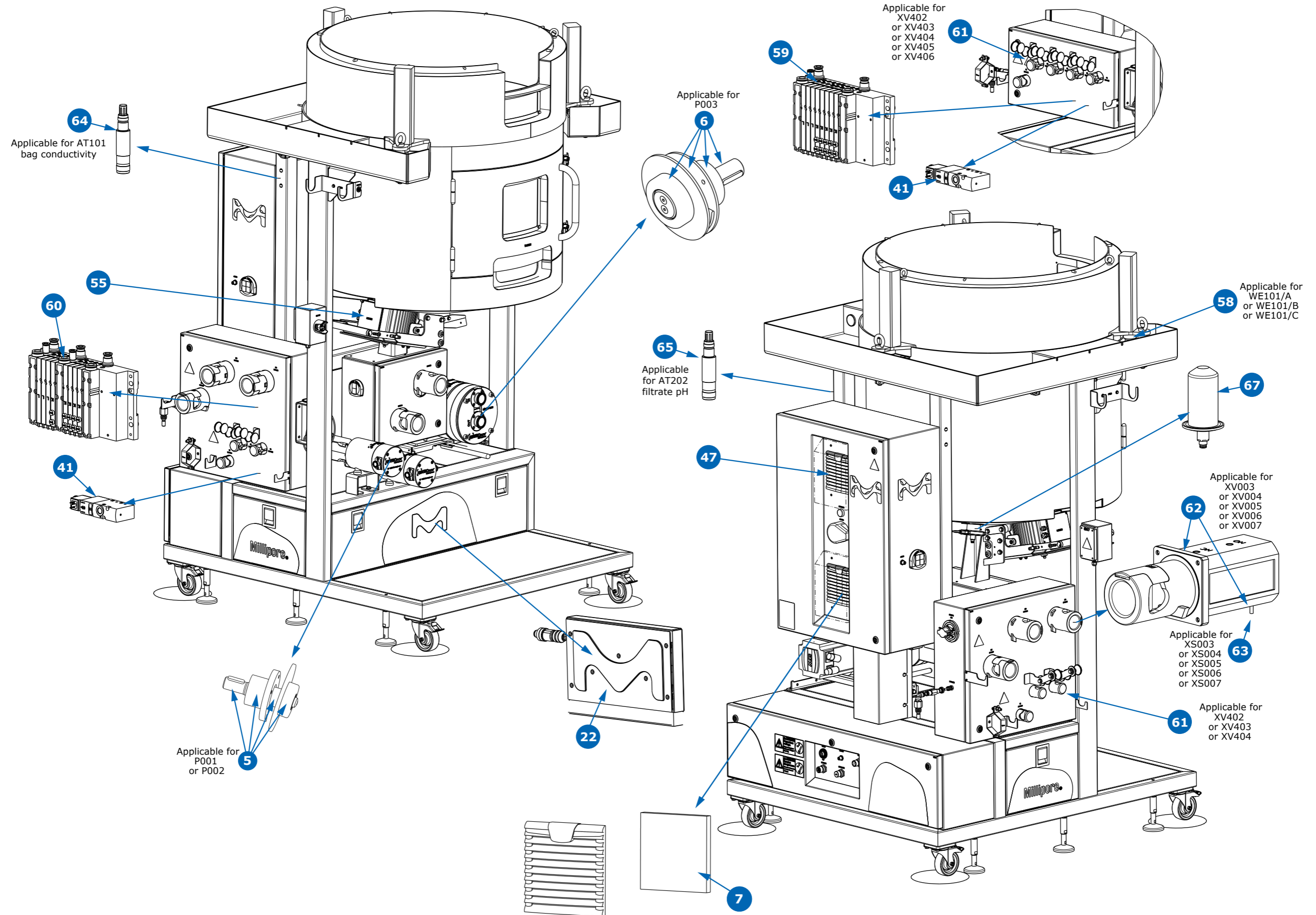
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Tank cart 200 L



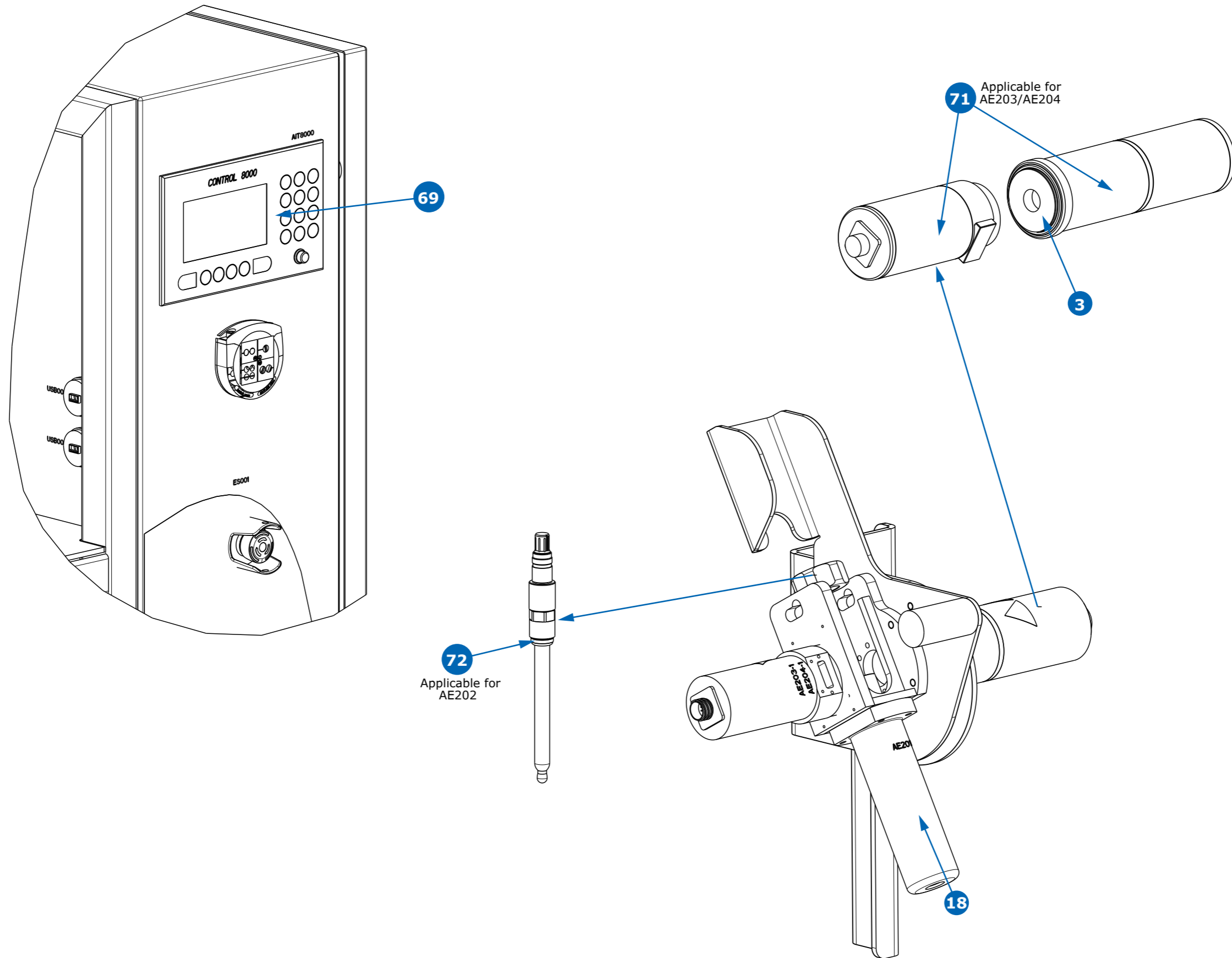
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Tank Cart 500 L



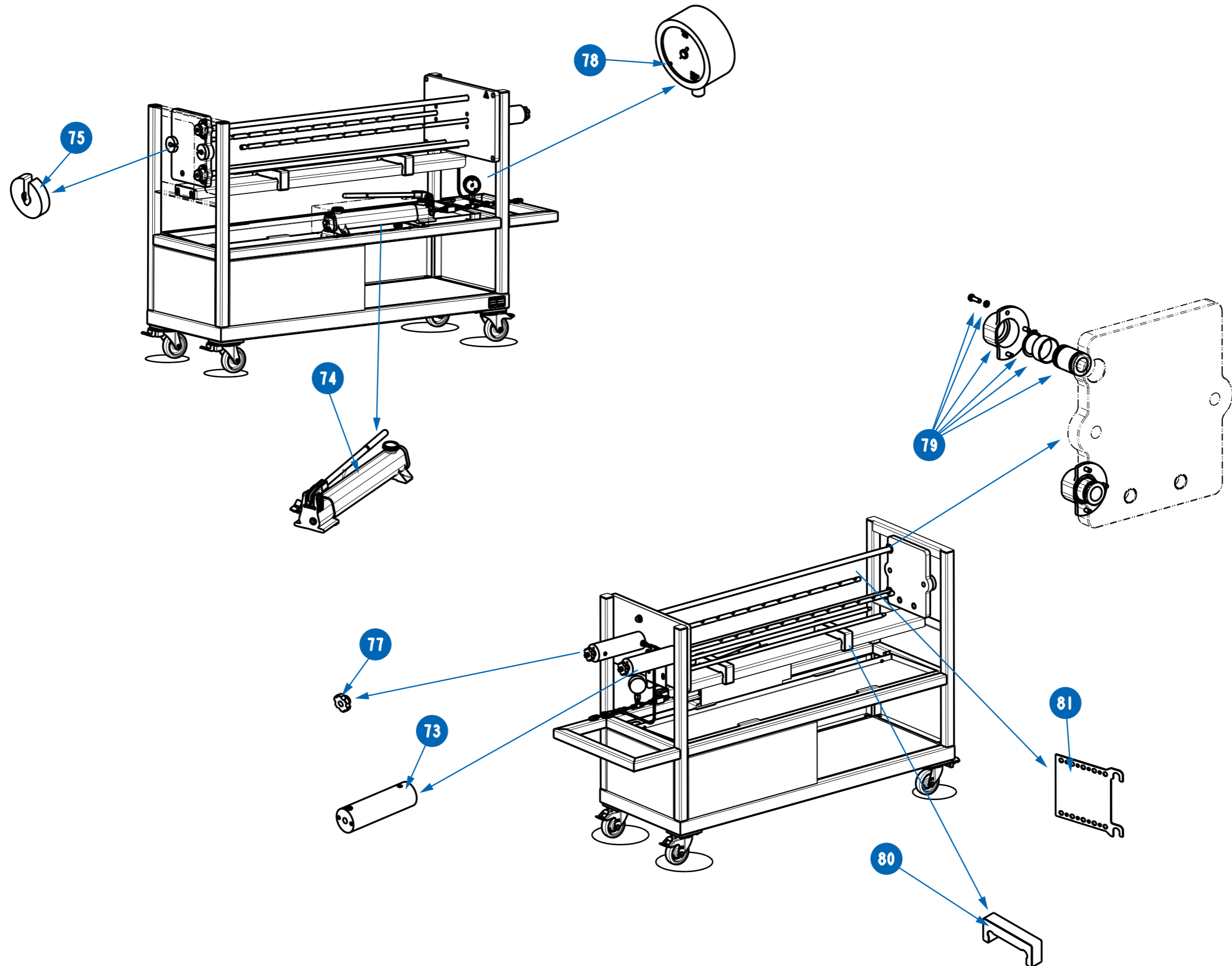
Mobius® TFF 80 System—Spare Parts List

Instruments



Mobius® TFF 80 System—Spare Parts List

Cassette holder



For more information, please visit
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