



EVOLUTION OF TECHNOLOGY



ZETA FILTER HOUSINGS

300_Filter Housing

General



1Round AIR FILTER HOUSING



Multi-Round AIR FILTER HOUSING



Multi-Round LIQUID FILTER HOUSING



1Round VENT FILTER HOUSING



1Round LIQUID FILTER HOUSING



Multi-Round HQ-LIQUID FILTER HOUSING

Filter Housing

- 1R x 5” Air, Liquid & Vent Filter Housing
- 1R x 10” Air, Liquid & Vent Filter Housing
- 1R x 20” Air, Liquid & Vent Filter Housing
- 1R x 30” Air, Liquid & Vent Filter Housing
- 3R x 10” Air & Liquid Filter Housing
- 3R x 20” Air & Liquid Filter Housing
- 3R x 30” Air & Liquid Filter Housing
- 5R x 10” Air & Liquid Filter Housing
- 5R x 20” Air & Liquid Filter Housing
- 5R x 30” Air & Liquid Filter Housing

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Information about Filter Housing

ZETA filter housings are designed in accordance with ASME section VIII & ASME BPE codes.

The Filter housing range is available in both single and multi-round style. The housings design takes account of sanitary and GMP design requirements necessary for stainless steel products within the industry. They can be supplied in with a variety of different End connections and configurations.

Features and benefits

- Combines sanitary design and cost-effectiveness.
- Meets stringent requirements in the different biopharmaceutical market segments.
- Enhanced cleanability due to crevice-free design.
- Suitable for SIP and CIP.
- Manufactured in 1, 3 and 5-round configuration. 8 and 12 round on request.
- Available with different inlet and outlet connections.
- Includes options with quick fit Staubli connectors for integrity testing.
- Operator friendly Standard Clamp for single round housing and Segment Clamp for multi-round housing.
- ASME BPE compliance regarding designing material joining and surface finish.

Specification

- Maximum operating pressure: -1 to 10 barg (-14.5 to 145 psig)
- Maximum operating temperature: 150 °C
- Surface finish (Process contact): SF4 (Ra < 0.38µm / 15µin) acc. ASME BPE (Electropolished)
- Surface finish (non-Process contact): ≤1.2µm, Matt finish
- Adaptor design: Adaptor 25
- Cartridge code: Code 7 (Type: 226)

Materials of Construction

- Process-contact surfaces: 1.4404 (SS316L) | 1.4435 and other materials on request
- Non-Process contact surfaces: SS304

Filter housing variants based on specifications

1. ZQ – Standard specifications



ZQ – ZETA standard specifications refers to the recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)

2. HQ – High specifications



HQ – High quality specifications refers to the single block adaptor with recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)

AIR HOUSING ORDERING INFORMATION

- * 300.#Q.XAY.IOXXYY.TXXYYZ.BXXYYZ.G.*S#
 - 300 – Filter Housing
 - #Q – Filter Housing model
 - ZQ – Superior specifications
 - XAY - Number of Cartridges, Type of Housing & Size of Cartridges
 - X – Number of Cartridges
 - 1 – 1 Round
 - 3 – 3 Round
 - 5 – 5 Round
 - A – Air Housing
 - Y – Size of Cartridge
 - 5 – 5” Cartridge
 - 10 – 10” Cartridge
 - 20 – 20” Cartridge
 - 30 – 30” Cartridge
 - IOXXYY – Inlet & Outlet size and Type of end connection
 - IO – Inlet & Outlet
 - XX – Size of Inlet & Outlet
 - 15 – DN15
 - 20 – DN20
 - 25 – DN25
 - 40 – DN40
 - 50 – DN50
 - 65 – DN65
 - YY – Size of Inlet & Outlet
 - BW – Butt Weld
 - D1 – DIN 11864-1 Form-A Threaded connector
 - D3 – DIN 11864-3 Form-A BKS TC Flange
 - TC – ASME BPE TC Flange
 - TXXYYZ – Top Connection, Type of connection, Additional provision
 - T – Top connection
 - XX – Size of Inlet & Outlet
 - 15 – DN15
 - 20 – DN20
 - 25 – DN25
 - 40 – DN40
 - 50 – DN50
 - 65 – DN65

- YY – Size of Inlet & Outlet
 - BW – Butt Weld
 - D1 – DIN 11864-1 Form-A Threaded connector
 - D3 – DIN 11864-3 Form-A BKS TC Flange
 - TC – ASME BPE TC Flange
 - Z – Additional provision
 - 0 – No integrity connection
 - 1 – With integrity connection
 - X – special requirement
 - BXXYYZ – Bottom Connection, Type of connection, Additional provision
 - B – Bottom connection
 - XX – Size of Inlet & Outlet
 - 15 – DN15
 - 20 – DN20
 - 25 – DN25
 - 40 – DN40
 - 50 – DN50
 - 65 – DN65
 - YY – Size of Inlet & Outlet
 - BW – Butt Weld
 - D1 – DIN 11864-1 Form-A Collar connector
 - D3 – DIN 11864-3 Form-A BKS TC Flange
 - TC – ASME BPE TC Flange
 - Z – Additional provision
 - 0 – No integrity connection
 - 1 – With integrity connection
 - X – special requirement
 - G – Gasket/ O-ring material
 - E – EPDM
 - S – Silicone
 - P – PTFE
 - *S# - Material and surface Finish
 - AS4 – 1.4404 with SF4
 - BS4 – 1.4435 with SF4

LIQUID HOUSING ORDERING INFORMATION

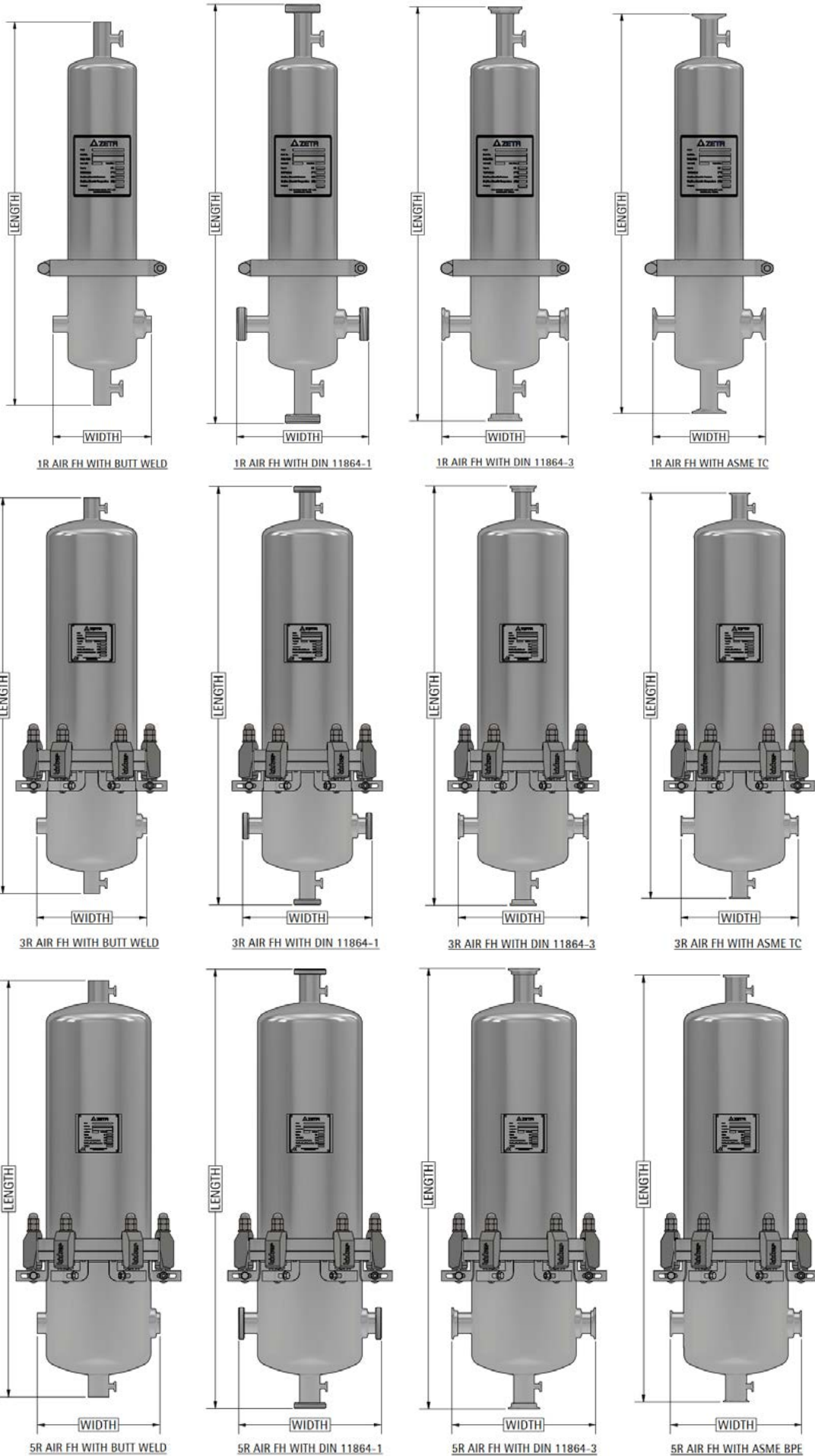
- * 300.#Q.XLY.IOXXYY.TXXYYZ.BXXYYZ.G.*S#
 - 300 – Filter Housing
 - #Q – Filter Housing model
 - ZQ – Superior specifications
 - HQ – High specifications
 - XLY - Number of Cartridges, Type of Housing & Size of Cartridges
 - X – Number of Cartridges
 - 1 – 1 Round
 - 3 – 3 Round
 - 5 – 5 Round
 - L – Liquid Housing
 - Y – Size of Cartridge
 - 5 – 5” Cartridge
 - 10 – 10” Cartridge
 - 20 – 20” Cartridge
 - 30 – 30” Cartridge
 - IOXXYY – Inlet & Outlet size and Type of end connection
 - IO – Inlet & Outlet
 - XX – Size of Inlet & Outlet
 - 15 – DN15
 - 20 – DN20
 - 25 – DN25
 - 40 – DN40
 - 50 – DN50
 - 65 – DN65
 - YY – Size of Inlet & Outlet
 - BW – Butt Weld
 - D1 – DIN 11864-1 Form-A Threaded connector
 - D3 – DIN 11864-3 Form-A BKS TC Flange
 - TC – ASME BPE TC Flange
 - TXXYYZ – Top Connection, Type of connection, Additional provision
 - T – Top connection
 - XX – Size of Inlet & Outlet
 - 15 – DN15
 - 20 – DN20
 - 25 – DN25
 - 40 – DN40
 - 50 – DN50
 - 65 – DN65

- YY – Size of Inlet & Outlet
 - BW – Butt Weld
 - D1 – DIN 11864-1 Form-A Threaded connector
 - D3 – DIN 11864-3 Form-A BKS TC Flange
 - TC – ASME BPE TC Flange
- Z – Additional provision
 - 0 – No integrity connection
 - 1 – With integrity connection
 - X – special requirement
- G – Gasket/ O-ring material
 - E – EPDM
 - S – Silicone
 - P – PTFE
- *S# - Material and surface Finish
 - AS4 – 1.4404 with SF4
 - BS4 – 1.4435 with SF4

VENT HOUSING ORDERING INFORMATION

- * 300.#Q.XVY.IOXXYY.BXXYY.G.*S#
 - 300 – Filter Housing
 - #Q – Filter Housing model
 - ZQ – Superior specifications
 - XVY - Number of Cartridges, Type of Housing & Size of Cartridges
 - X – Number of Cartridges
 - 1 – 1 Round
 - V – Vent Housing
 - Y – Size of Cartridge
 - 5 – 5” Cartridge
 - 10 – 10” Cartridge
 - 20 – 20” Cartridge
 - 30 – 30” Cartridge
 - IOXXYY – Inlet & Outlet size and Type of end connection
 - IO – Inlet & Outlet
 - XX – Size of Inlet & Outlet
 - 15 – DN15
 - 20 – DN20
 - 25 – DN25
 - 40 – DN40
 - YY – Size of Inlet & Outlet
 - BW – Butt Weld
 - D1 – DIN 11864-1 Form-A Threaded connector
 - D3 – DIN 11864-3 Form-A BKS TC Flange
 - TC – ASME BPE TC Flange
 - BXXYY – Bottom Connection, Type of connection, Additional provision
 - B – Bottom connection
 - XX – Size of Inlet & Outlet
 - 15 – DN15
 - YY – Size of Inlet & Outlet
 - BW – Butt Weld
 - G – Gasket/ O-ring material
 - E – EPDM
 - S – Silicone
 - P – PTFE
 - *S# - Material and surface Finish
 - AS4 – 1.4404 with SF4
 - BS4 – 1.4435 with SF4

AIR FILTER HOUSING DIMENSIONS (ZQ)



AIR HOUSING & (ZQ)							
Housing size	Inlet size	Outlet size	Butt Weld*		Connector (D1, D3, TC)*		Bell Removal Clearance (±20)
			Length X (±20)	Width Y (±20)	Length X (±20)	Width Y (±20)	
1Rx5"	DN15	DN15	450	145	490	175	180
1Rx5"	DN20	DN20	450	145	490	175	180
1Rx5"	DN25	DN20	450	145	505	195	180
1Rx5"	DN40	DN40	450	145	505	195	180
1Rx10"	DN15	DN15	600	145	635	175	320
1Rx10"	DN20	DN20	600	145	635	175	320
1Rx10"	DN25	DN25	600	145	650	195	320
1Rx10"	DN40	DN40	600	145	650	195	320
1Rx20"	DN15	DN15	850	145	80	175	570
1Rx20"	DN20	DN20	850	145	885	175	570
1Rx20"	DN25	DN25	850	145	900	195	570
1Rx20"	DN40	DN40	850	145	900	195	570
1Rx30"	DN15	DN15	1090	145	1125	175	820
1Rx30"	DN20	DN20	1090	145	1125	175	820
1Rx30"	DN25	DN25	1090	145	1140	195	820
1Rx30"	DN40	DN40	1090	145	1140	195	820
3Rx10"	DN25	DN25	745	265	800	310	340
3Rx10"	DN40	DN40	745	265	800	310	340
3Rx20"	DN25	DN25	990	265	1045	310	590
3Rx20"	DN40	DN40	990	265	1045	310	590
3Rx30"	DN25	DN25	1230	265	1285	310	830
3Rx30"	DN40	DN40	1230	265	1285	310	830
5Rx10"	DN40	DN40	755	300	815	350	340
5Rx10"	DN50	DN50	775	300	830	350	340
5Rx10"	DN65	DN65	800	300	865	370	340
5Rx20"	DN40	DN40	1000	300	1060	350	595
5Rx20"	DN50	DN50	1025	300	1080	350	595
5Rx20"	DN65	DN65	1050	300	1120	370	595
5Rx30"	DN40	DN40	1245	300	1300	350	845
5Rx30"	DN50	DN50	1265	300	1320	350	845
5Rx30"	DN65	DN65	1290	300	1360	370	845

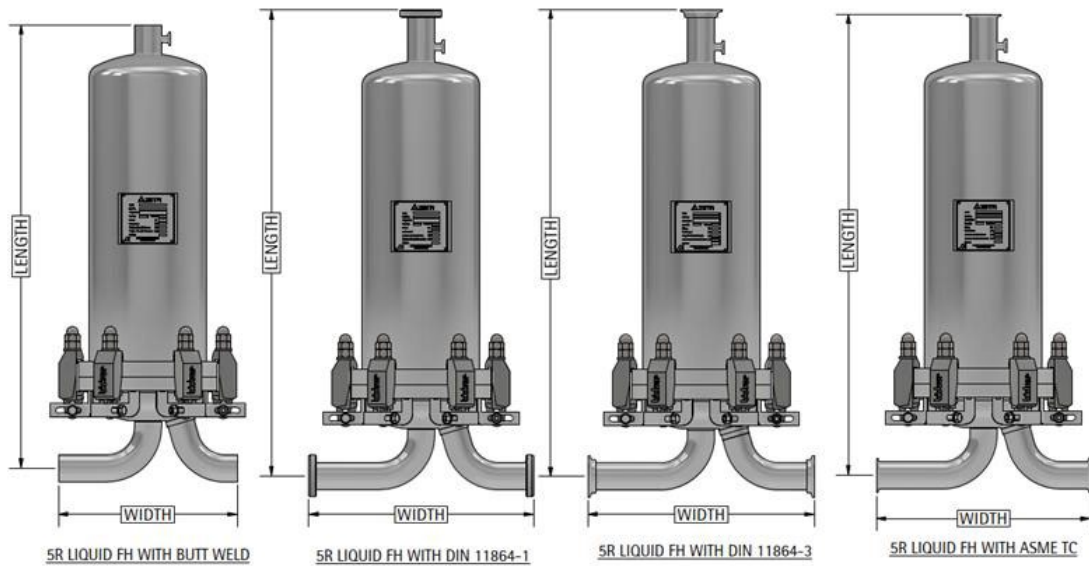
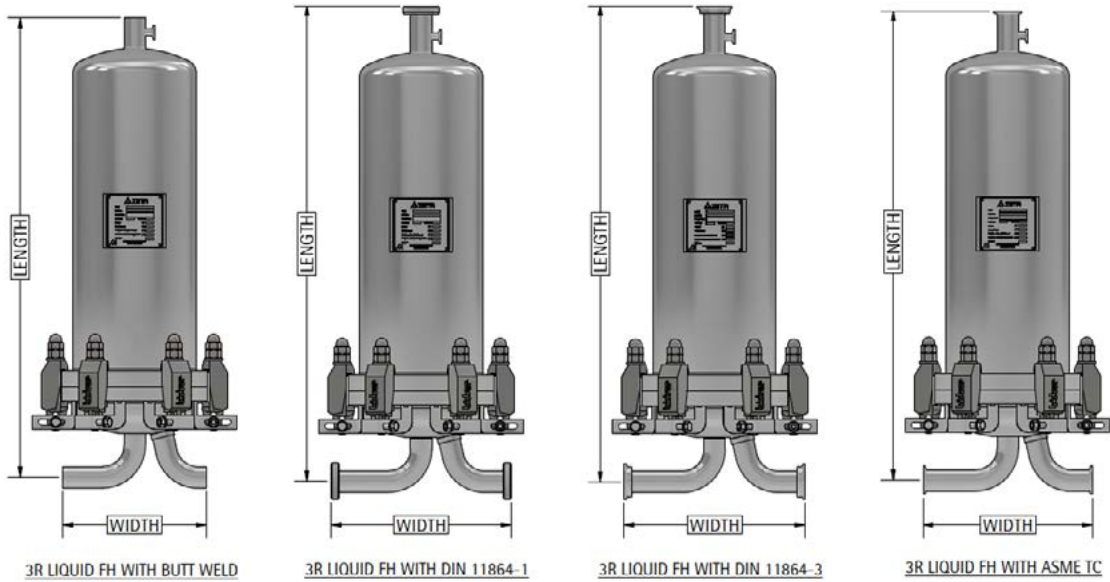
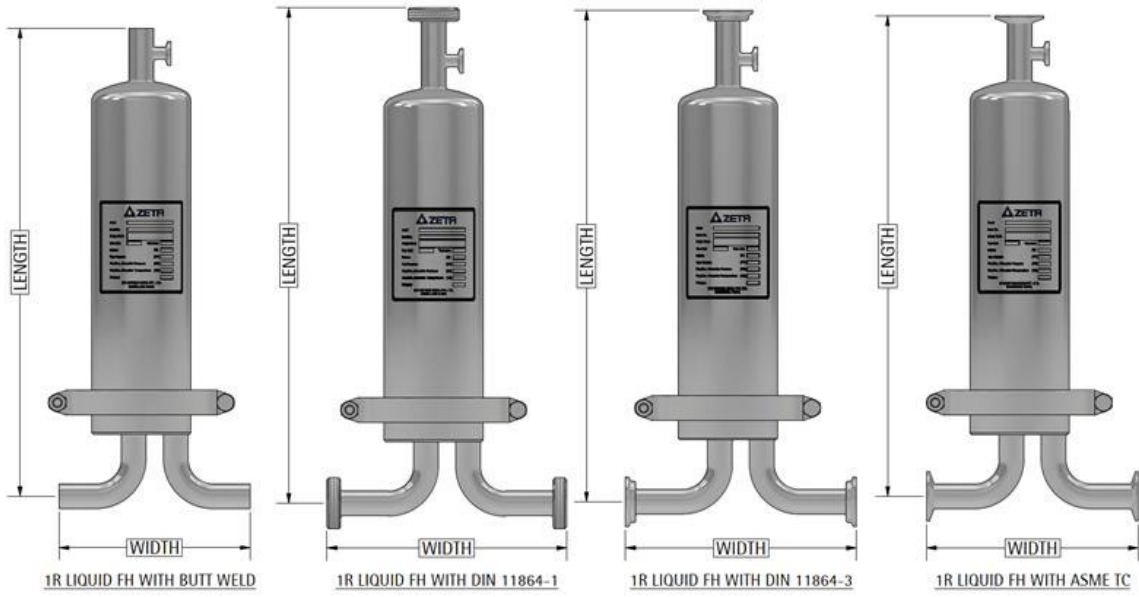
* All dimensions are in mm otherwise specified.

* Overall height is with integrity provision. With additional leg supports and Removal of Integrity provision the overall height of Filter housing will vary.

Note:

1. ZQ - ZETA standard specifications refers to the recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)
2. HQ - High quality specifications refers to the single block adaptor with recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)

LIQUID FILTER HOUSING DIMENSIONS (ZQ)



LIQUID HOUSING (ZQ)							
Housing size	Inlet size	Outlet size	Butt Weld*		Connector (D1, D3, TC)*		Bell Removal Clearance (±20)
			Length X (±20)	Width Y (±20)	Length X (±20)	Width Y (±20)	
1Rx5"	DN15	DN15	320	220	335	235	170
1Rx5"	DN20	DN20	320	220	335	235	170
1Rx5"	DN25	DN25	330	220	350	250	170
1Rx10"	DN15	DN15	470	220	490	235	310
1Rx10"	DN20	DN20	470	220	490	235	310
1Rx10"	DN25	DN25	480	220	500	250	310
1Rx20"	DN15	DN15	720	220	740	235	700
1Rx20"	DN20	DN20	720	220	740	235	700
1Rx20"	DN25	DN25	730	220	750	250	700
1Rx30"	DN15	DN15	960	220	980	235	810
1Rx30"	DN20	DN20	960	220	980	235	810
1Rx30"	DN25	DN25	970	220	990	250	810
3Rx10"	DN25	DN25	565	200	585	240	330
3Rx10"	DN40	DN40	575	255	600	315	330
3Rx20"	DN25	DN25	810	200	830	240	590
3Rx20"	DN40	DN40	820	255	845	315	590
3Rx30"	DN25	DN25	1050	200	1075	245	835
3Rx30"	DN40	DN40	1060	255	1085	295	835
5Rx10"	DN40	DN40	575	255	600	315	330
5Rx10"	DN50	DN50	580	335	615	415	330
5Rx20"	DN40	DN40	820	255	845	315	590
5Rx20"	DN50	DN50	830	335	865	415	590
5Rx30"	DN40	DN40	1060	255	1085	315	835
5Rx30"	DN50	DN50	1070	335	1110	415	835

* All dimensions are in mm otherwise specified.

* Overall height is with integrity provision. With additional leg supports and Removal of Integrity provision the overall height of Filter housing will vary.

Note:

1. ZQ - ZETA standard specifications refers to the recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)
2. HQ - High quality specifications refers to the single block adaptor with recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)

LIQUID FILTER HOUSING DIMENSIONS (HQ)



1R LIQUID FH WITH BUTT WELD



1R LIQUID FH WITH DIN 11864-1



1R LIQUID FH WITH DIN 11864-3



1R LIQUID FH WITH ASME TC



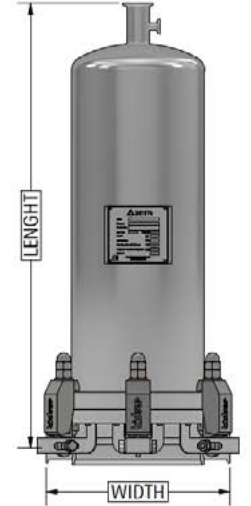
3R LIQUID FH WITH BUTT WELD



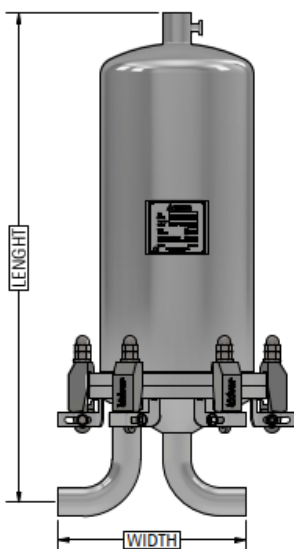
3R LIQUID FH WITH DIN 11864-1



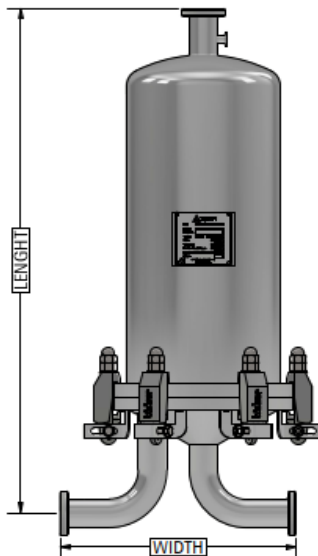
3R LIQUID FH WITH DIN 11864-3



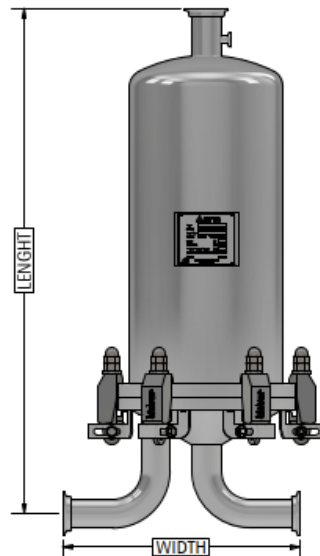
3R LIQUID FH WITH ASME TC



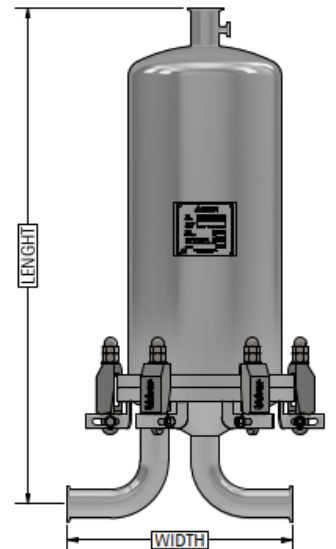
5R LIQUID FH WITH BUTT WELD



5R LIQUID FH WITH DIN 11864-1



5R LIQUID FH WITH DIN 11864-3



5R LIQUID FH WITH ASME TC

LIQUID HOUSING (HQ)							
Housing size	Inlet size	Outlet size	Butt Weld*		Connector (D1, D3, TC)*		Bell Removal Clearance (±20)
			Length X (±20)	Width Y (±20)	Length X (±20)	Width Y (±20)	
1Rx5"	DN15	DN15	260	150	270	170	170
1Rx5"	DN20	DN20	260	150	275	170	170
1Rx5"	DN25	DN25	260	150	280	170	170
1Rx10"	DN15	DN15	405	150	420	170	310
1Rx10"	DN20	DN20	405	150	425	170	310
1Rx10"	DN25	DN25	405	150	430	170	310
1Rx20"	DN15	DN15	655	150	670	170	560
1Rx20"	DN20	DN20	655	150	675	170	560
1Rx20"	DN25	DN25	655	150	680	170	560
1Rx30"	DN15	DN15	895	150	910	170	835
1Rx30"	DN20	DN20	895	150	915	170	835
1Rx30"	DN25	DN25	895	150	920	170	835
3Rx10"	DN40	DN40	475	290	500	315	405
3Rx10"	DN50	DN50	475	290	500	315	405
3Rx20"	DN40	DN40	720	290	745	315	595
3Rx20"	DN50	DN50	720	290	745	315	595
3Rx30"	DN40	DN40	960	290	985	315	840
3Rx30"	DN50	DN50	960	290	985	315	840
5Rx10"	DN40	DN40	600	370	620	450	420
5Rx10"	DN50	DN50	620	420	645	500	340
5Rx10"	DN65	DN65	640	460	675	560	340
5Rx20"	DN40	DN40	840	370	865	450	780
5Rx20"	DN50	DN50	870	420	890	500	805
5Rx20"	DN65	DN65	880	460	920	560	825
5Rx30"	DN40	DN40	1080	370	1105	450	1025
5Rx30"	DN50	DN50	1110	420	1130	500	1050
5Rx30"	DN65	DN65	1125	460	1160	560	1070

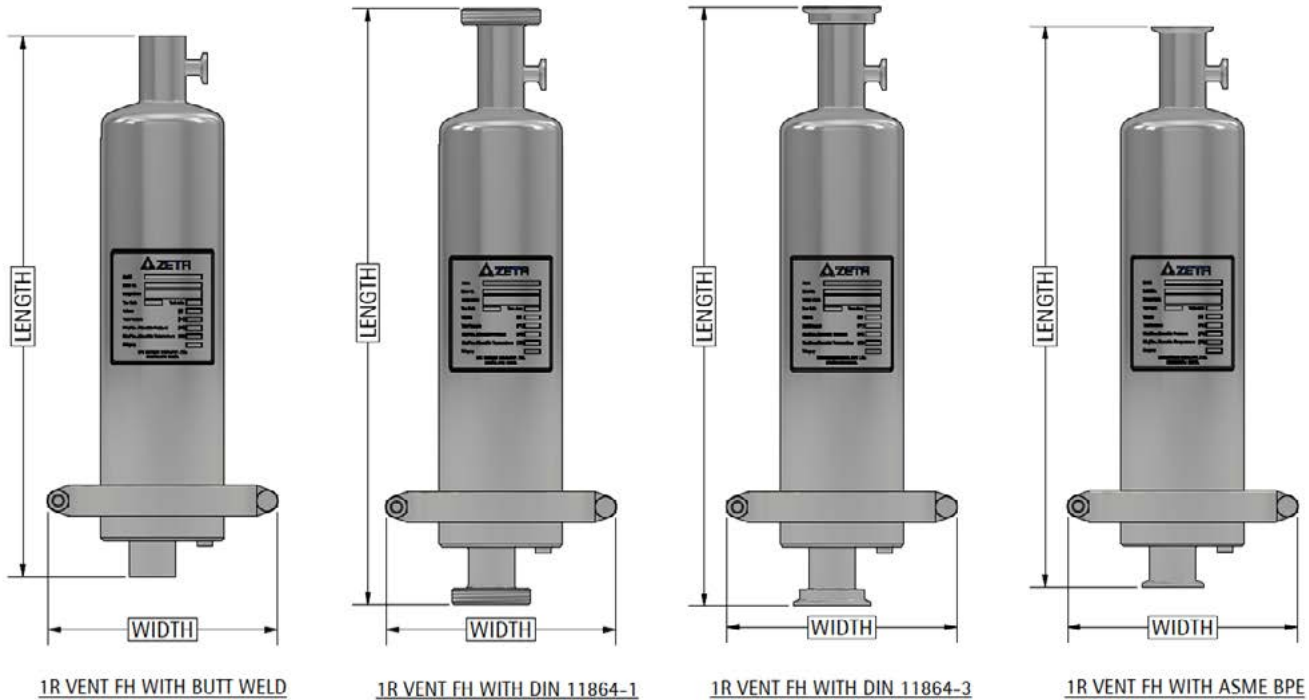
* All dimensions are in mm otherwise specified.

* Overall height is with integrity provision. With additional leg supports and Removal of Integrity provision the overall height of Filter housing will vary.

Note:

1. ZQ - ZETA standard specifications refers to the recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference).
2. HQ - High quality specifications refers to the single block adaptor with recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)

VENT FILTER HOUSING DIMENSIONS (ZQ)



1R VENT FH WITH BUTT WELD

1R VENT FH WITH DIN 11864-1

1R VENT FH WITH DIN 11864-3

1R VENT FH WITH ASME BPE

VENT HOUSING (ZQ)

Housing size	Inlet size	Outlet size	Butt Weld*		Connector (D1, D3, TC) *		Bell Removal Clearance (±20)
			Length X (±20)	Width Y (±20)	Length X (±20)	Width Y (±20)	
1Rx5"	DN15	DN15	300	190	325	190	180
1Rx5"	DN20	DN20	300	190	325	190	180
1Rx5"	DN25	DN25	300	190	330	190	180
1Rx5"	DN40	DN40	300	190	335	190	180
1Rx10"	DN15	DN15	445	190	475	190	320
1Rx10"	DN20	DN20	445	190	475	190	320
1Rx10"	DN25	DN25	445	190	485	190	320
1Rx10"	DN40	DN40	445	190	485	190	320
1Rx20"	DN15	DN15	695	190	725	190	580
1Rx20"	DN20	DN20	695	190	725	190	580
1Rx20"	DN25	DN25	695	190	735	190	580
1Rx20"	DN40	DN40	695	190	735	190	580
1Rx30"	DN15	DN15	940	190	965	190	820
1Rx30"	DN20	DN20	940	190	965	190	820
1Rx30"	DN25	DN25	940	190	975	190	820
1Rx30"	DN40	DN40	940	190	975	190	820

* All dimensions are in mm otherwise specified.

* Overall height is with integrity provision. With additional leg supports and Removal of Integrity provision the overall height of Filter housing will vary.

Note:

1. ZQ - ZETA standard specifications refers to the recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)
2. HQ - High quality specifications refers to the single block adaptor with recessed locking tab retainer. (Refer ASME BPE Table DT-4.5.1-1 for reference)

ACCESSORIES



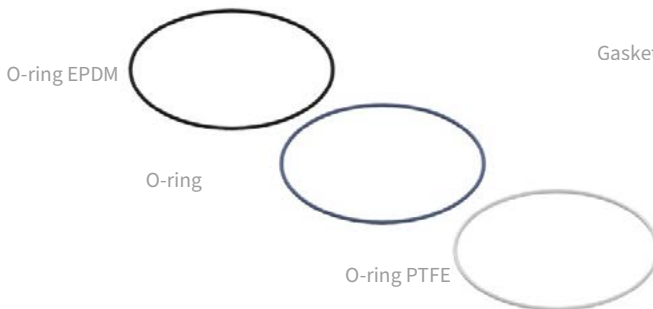
BLIND CIP CAP



CIP CAP WITH



LEGS



O-ring EPDM

O-ring

O-ring PTFE

Gasket EPDM

Gasket

Gasket



ASME BPE-TC


 DIN 11864-1
THREADED CONNECTOR

 DIN 11864-1
COLLAR CONNECTOR

 DIN 11864-3
NKS CONNECTOR

 DIN 11864-3
BKS CONNECTOR

ACCESSORIES		
Order code	Description	Included/ Additional cost
300.A1	1Round Blind CIP cap	Additional cost
300.A2	1Round CIP cap	Additional cost
300.A3	Multi-Round Blind CIP cap	Additional cost
300.A4	Multi-Round CIP cap	Additional cost
300.A5	Legs	Additional cost
300.A6	Spare O-ring/ Gasket	Additional cost
300.A7	Counter connectors/ Dummies	Additional cost
300.A8	Adaptor dummy plug	Additional cost

Cartridges are out of scope.

Note: Gasket colours are shown for representation purposes only.

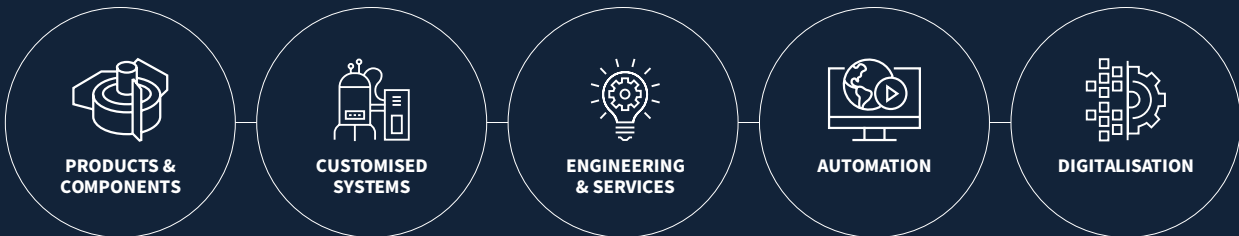
CERTIFICATES

CERTIFICATES		
Order code	Description	Included/ Additional cost
300.C1	ASME Certification	Additional cost
300.C2	PED Certification	Additional cost
300.C3	Material inspection certificate 3.1 (or another specific requirement)	Included
300.C4	Weld inspection report	Included
300.C5	Borescope	Included
300.C6	PMI report	Additional cost
300.C7	Ferrite content report	Additional cost
300.C8	Surface finish report	Included
300.C9	Weld map, Weld log, GA	Included
300.C10	EP & Passivation report	Included
300.C11	USP class VI certificate (FDA conformity)	Included
300.C12	TSE/BSE Certificate (Certificate of conformance)	Additional cost

Standard pricelist available for ZETA standard quality.

Beside the standard offerings we can provide further options and customization based on customer requirements. Lead times and pricings are available on request.

INNOVATIVE SOLUTIONS



ZETA Business Activities

EPCM contractor
Plant engineering
HVAC, cleanroom & BMS/EMS design
Decarbonization
Automation
Digitalisation
Qualification
Maintenance & Upgrades

Customer Benefits

Ultra-fast projects & faster time to market
End-to-end solutions from a single source
Customized solutions
GMP-/FDA-Compliance
Deep process understanding
Experience in complex biologics
High process reliability
Scale-up capabilities
Own innolab ZETA TechCenter

ZETA GmbH

Zetaplatz 1, 8501 Lieboch/Graz, AUSTRIA

