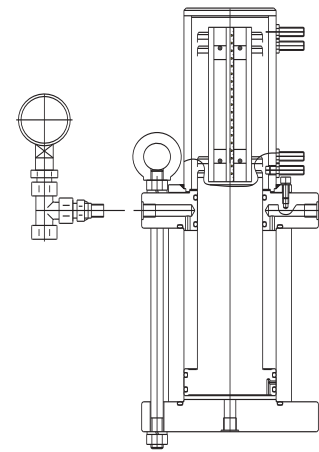


Design series ESD 66 H / Pressure Splitting Device**Product Information****Technical Data**

- Triple-acting mechanical seal
- Backup seal chamber for emergency operations
- Extended life time by pressure splitting device



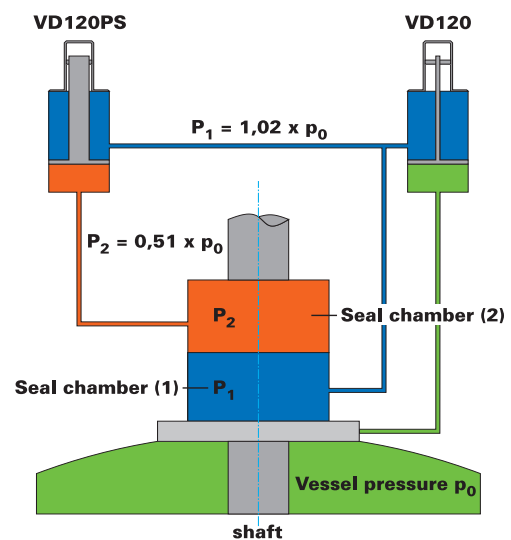
Pressure Splitting Device VD120PS

Function

- In conventional double acting mechanical seals 2 pairs of seal rings form one seal chamber (1) for the buffer fluid.
- In a triple acting mechanical seal an additional pair of seal rings forms an additional seal chamber (2).
- The pressure compensator VD120 increases the vessel pressure P_0 (green) slightly up to the pressure P_1 (blue) of the seal chamber (1).
- The pressure splitting device VD120PS reduces the pressure P_1 (blue) of the first seal chamber (1) to the half P_2 (red).
- As a result the intermediate pair of seal rings between chambers (1) and (2) and the outboard pair of seal rings are exposed only to half of the pressure drop than in a conventional double acting mechanical seal.

Application

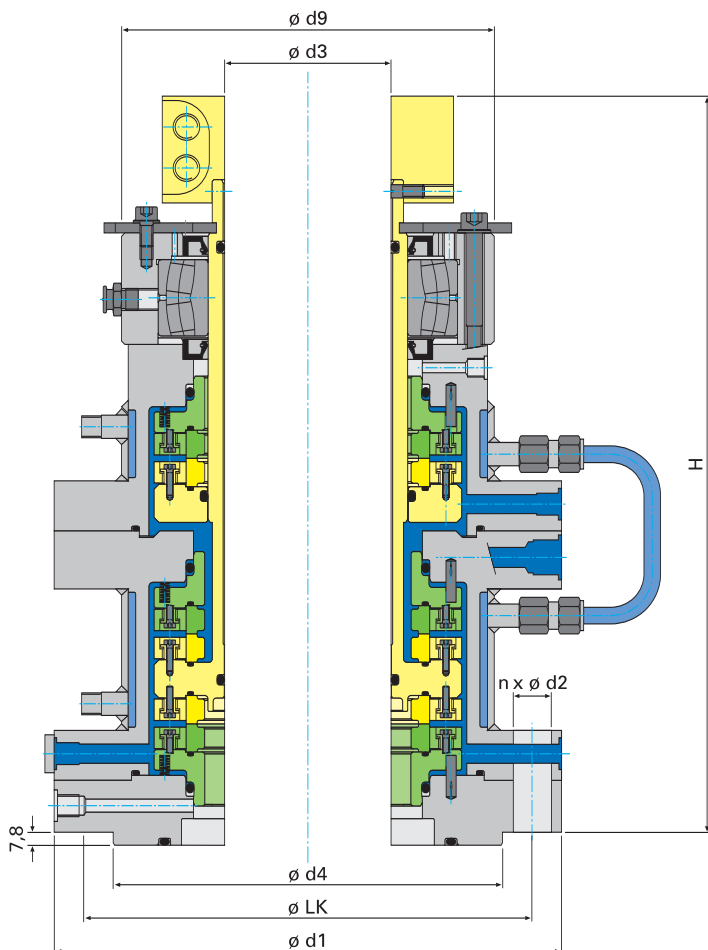
- highly toxic or explosive products (i.e. hydrogen)
- hazardous processes
- processes demanding high reliability in operation



ESD66H Mechanical Seal



Design Details ESD66H



Application Limits

Vessel pressure

Vacuum ... 100 bar

Vessel temperature

-50 ... + 400° C

Shaft diameter

40 ... 220 mm

Seal face velocity

0 ... 3 m/s

Materials

Housing

Stainless steel

Product-wetted parts

Stainless steel, Hastelloy, Titanium, special materials

Seal rings

Carbon, Silicon Carbide

O-rings

Viton, EPDM, Perfluor elastomers, special materials

FDA approval

Possible for all product-wetted parts

Dimensions ESD66H

Seal type / size	d1	d3	d4	d9	LK	n x d2	H
ESD66H/ 40	195	40	110	195	165	4 x 18	333
ESD66H/ 60	240	60	176	242	210	8 x 18	425
ESD66H/ 80	275	80	204	213	240	8 x 23	450
ESD66H/100	305	100	234	222	270	8 x 23	470
ESD66H/120	330	120	260	256	295	8 x 23	495
ESD66H/140	395	140	313	298	350	12 x 23	515
ESD66H/160	395	160	313	311	350	12 x 23	530
ESD66H/180	445	180	364	348	400	12 x 23	540
ESD66H/200	445	200	364	380	400	12 x 23	550
ESD66H/220	505	220	422	415	460	12 x 23	560

all dimensions in mm; additional sizes on request; subject to change without notice

Advantages

- Highly extended live time compared to double acting mechanical seals.
- No shutdown required in emergency situations: the seal can be operated as a double acting mechanical seal, if one pair of seal rings fails.
- Automatic detection and localisation of leaks.

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