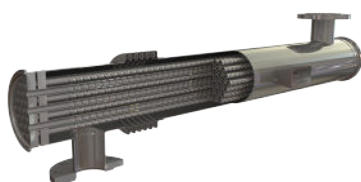




## DOUBLE TUBEPLATE PHARMACEUTICAL HEAT EXCHANGERS



The HRS SP Series is a multitube shell and tube heat exchanger designed with the added security of a double tubeplate, providing leak detection to avoid cross contamination between the service and product fluids.

The HRS SP series is perfect for pharmaceutical applications.

Using our corrugation technology, heat transfer and efficiency are increased over standard smooth tube heat exchangers. In addition, potential fouling is minimised.



### TECHNICAL DATA

Water for Injection (WFI)  
Purified Water

External: Polished  
Internal: <0.4µ  
Electropolished version available

Service Side: AISI 304/316L Stainless Steel  
Product Side: AISI 316L Stainless Steel  
*Other material options available*

Service Side: 10 bar/185°C  
Product Side: 10 bar/185°C

Service Side: Flange  
Product Side: Clamp  
*All flange & clamp types available*

- Corrugated tubes for increased heat transfer
- Bellows are fitted to absorb differential expansion between shell and inner tubes
- Multiple units can be interconnected and mounted in a frame
- Multipass version available

MODELS	LENGTHS (m)	SURFACE AREA (m <sup>2</sup> )	SERVICE SIDE CONNECTION	PRODUCT SIDE CONNECTION	MAX FLOW SERVICE (m <sup>3</sup> /hr)	MAX FLOW PRODUCT (m <sup>3</sup> /hr)	SERVICE SIDE VOLUME (l)	PRODUCT SIDE VOLUME (l)
SP04 4 64/17	0.7 - 6	1.3	DN40	2.5"	17	6	11.7	3.7
SP04 7 76/17	0.7 - 6	2.3	DN40	3"	17	10	15.5	6.5
SP04 13 104/17	0.7 - 6	4.3	DN65	4"	40	20	29	12
SP04 21 129/17	0.7 - 6	6.8	DN80	5"	52	32	44.4	19.4
SP04 31 154/17	0.7 - 6	10	DN80	6"	52	50	58.4	28.6
SP04 37 168/17	0.7 - 6	11.8	DN80	ISO1127 DN150	52	60	72.6	33.6

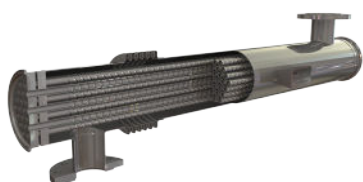
By standard the following lengths can be supplied: 0.7/1/1.5/2/3/6 m. The surface area and volumes shown are for 6m length models.

PD 5500, PED 2014/68/EU, ASME | TR CU 032, DOSH Compliant

**HRS HEAT EXCHANGERS** | [hrs-heatexchangers.com](http://hrs-heatexchangers.com) | **UK Office** +44 (0)1923 232335 | [info@uk.hrs-he.com](mailto:info@uk.hrs-he.com)



## DOUBLE TUBEPLATE PHARMACEUTICAL HEAT EXCHANGERS



The HRS SP Series is a multitube shell and tube heat exchanger designed with the added security of a double tubeplate, providing leak detection to avoid cross contamination between the service and product fluids.

The HRS SP series is perfect for pharmaceutical applications.

Using our corrugation technology, heat transfer and efficiency are increased over standard smooth tube heat exchangers. In addition, potential fouling is minimised.



### TECHNICAL DATA

Water for Injection (WFI)  
Purified Water

External: Polished  
Internal: <0.5µ  
Electropolished version available

Service Side: AISI 304/316L Stainless Steel  
Product Side: AISI 316L Stainless Steel  
*Other material options available*

Service Side: 10 bar/185°C  
Product Side: 10 bar/185°C

Service Side: Flange  
Product Side: Clamp  
*All clamp & clamp types available*

- Corrugated tubes for increased heat transfer
- Bellows are fitted to absorb differential expansion between shell and inner tubes
- Multiple units can be interconnected and mounted in a frame
- Multipass version available

MODELS	LENGTHS (m)	SURFACE AREA (m <sup>2</sup> )	SERVICE SIDE CONNECTION	PRODUCT SIDE CONNECTION	MAX FLOW SERVICE (m <sup>3</sup> /hr)	MAX FLOW PRODUCT (m <sup>3</sup> /hr)	SERVICE SIDE VOLUME (l)	PRODUCT SIDE VOLUME (l)
SP05 4 64/19	0.7 - 6	1.4	DN40	2.5"	15	7	10.3	4.6
SP05 7 76/19	0.7 - 6	2.5	DN40	3"	15	12	13.2	8.1
SP05 12 104/19	0.7 - 6	4.3	DN65	4"	40	20	26.3	13.8
SP05 19 129/19	0.7 - 6	6.8	DN80	5"	52	33	40.7	22
SP05 27 154/19	0.7 - 6	9.7	DN80	6"	52	50	55.5	31.6
SP05 31 168/19	0.7 - 6	11	DN80	ISO1127 DN150	52	62	71.1	35.7

By standard the following lengths can be supplied: 0.7/1/1.5/2/3/6 m. The surface area and volumes shown are for 6m length models.

PD 5500, PED 2014/68/EU, ASME | TR CU 032, DOSH Compliant

**HRS HEAT EXCHANGERS** | [hrs-heatexchangers.com](http://hrs-heatexchangers.com) | **UK Office** +44 (0)1923 232335 | [info@uk.hrs-he.com](mailto:info@uk.hrs-he.com)