

SANITARY CIP MULTITUBE HEAT EXCHANGERS

HRS MC SERIES



The HRS MC Series is a complete stainless steel shell and tube design for CIP applications. The cleaning solution flows through the interior tubes and the steam flows through the surrounding shell.

Using HRS corrugation technology, heat transfer and efficiency are increased over standard smooth tube heat exchangers. Easy install using sanitary clamp for cleaning solution connections, ANSI flange for steam inlet, and FNPT for condensate drain.



TECHNICAL DATA

APPLICATIONS

Cleaning Solution for CIP
Food Industry Applications

SURFACE FINISH

External: Polished
Internal: <0.8 μ

STANDARD MATERIALS OF CONSTRUCTION

Service Side: AISI 304 Stainless Steel
Product Side: AISI 316L Stainless Steel
Other materials option available

STANDARD DESIGN CONDITIONS

Service Side: 147 PSI/365°F
Product Side: 147 PSI/365°F

STANDARD CONNECTIONS

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

FEATURES

- Corrugated tubes for increased heat transfer
- Bellows are fitted to absorb differential expansion between shell and inner tubes
- Vertical or horizontal mounting options available

RANGE

MODELS	LENGTHS (ft)	SURFACE AREA (ft ²)	SERVICE SIDE CONNECTION	CONDENSATE CONNECTION	PRODUCT SIDE CONNECTION	MAX PRODUCT FLOW (gpm)	WEIGHT (lbs)
MC 2 89/16	5	10	2"	1"	2"	44	46
MC 3 114/16	6.5	22.5	3"	1.5"	3"	198	83
MC 4 154/16	6.5	40	3"	2"	4"	264	138
MC 6 219/18*	10	100	6"	3"	6"	440	310

DESIGN CODE AND COMPLIANCE

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



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SELECTION CHART

STEAM @ 45 PSI (273.2°F)					
FLOW RATE (GPM)	CIP SOLUTIONS TEMPERATURE RANGE				TYPICAL TUBING DIAMETER
	122 - 158°F	140 - 176°F	158 - 194°F	176 - 212°F	
22	MC 2	MC 2	MC 2	MC 2	1.5"
44	MC 2	MC 2	MC 2	MC 3	2"
66	MC 3	MC 3	MC 3	MC 3	2.5"
88	MC 3	MC 3	MC 3	MC 3	↓
110	MC 3	MC 3	MC 3	MC 4	3"
132	MC 3	MC 3	MC 4	MC 4	↓
154	MC 4	MC 4	MC 4	MC 4	↓
176	MC 4	MC 4	MC 4	MC 6	4"
198	MC 4	MC 4	MC 6	MC 6	↓
220	MC 4	MC 4	MC 6	MC 6	↓
242	MC 4	MC 6	MC 6	MC 6	↓
264	MC 6	MC 6	MC 6	MC 6	↓
418	MC 6	MC 6	MC 6	MC 6*	6"
440	MC 6	MC 6	MC 6	MC 6*	↓

*Pressure is 60 PSIA instead of 45 PSIA

STEAM @ 90 PSI (273.2°F)					
FLOW RATE (GPM)	CIP SOLUTIONS TEMPERATURE RANGE				TYPICAL TUBING DIAMETER
	122 - 158°F	140 - 176°F	158 - 194°F	176 - 212°F	
22	MC 2	MC 2	MC 2	MC 2	1.5"
44	MC 2	MC 2	MC 2	MC 3	2"
66	MC 3	MC 3	MC 3	MC 3	2.5"
88	MC 3	MC 3	MC 3	MC 3	↓
110	MC 3	MC 3	MC 3	MC 3	3"
132	MC 3	MC 3	MC 3	MC 3	↓
154	MC 3	MC 3	MC 3	MC 4	↓
176	MC 3	MC 3	MC 4	MC 4	4"
198	MC 3	MC 4	MC 4	MC 4	↓
220	MC 4	MC 4	MC 4	MC 4	↓
242	MC 4	MC 4	MC 4	MC 4	↓
264	MC 4	MC 4	MC 4	MC 6	↓
418	MC 6	MC 6	MC 6	MC 6	6"
440	MC 6	MC 6	MC 6	MC 6	↓