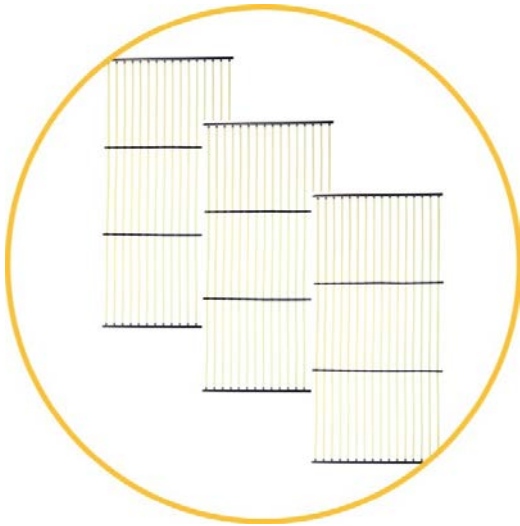


Under-floor system heating/cooling

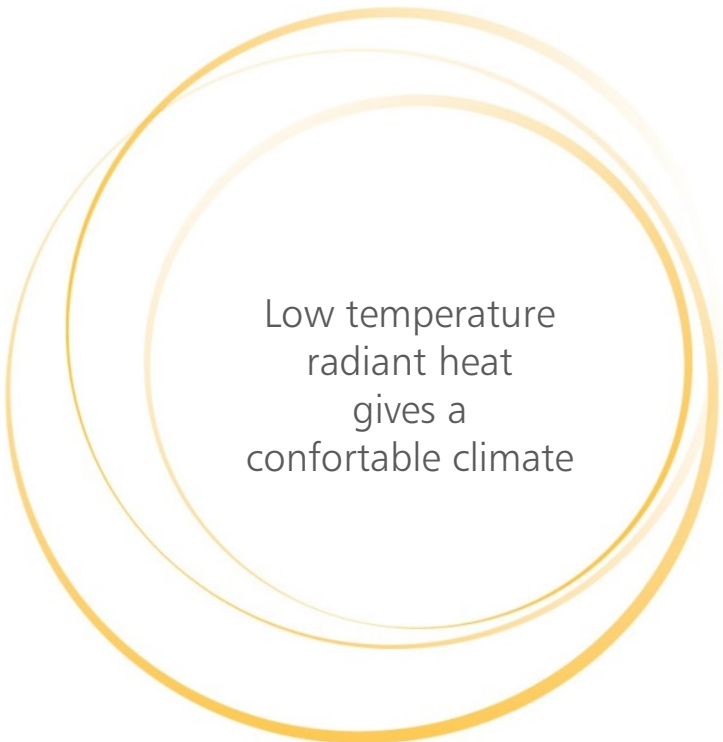


IS-HKF pro

Range of application :

- ▶ Low temperature radiant floor
- ▶ Heating and cooling
- ▶ Domestic , industrial and hotel buildings
- ▶ New construction and refurbishment

- ▶ Exact separation between tubes for an optimal heat transfer
- ▶ The welding method assures a simple and quick installation
- ▶ Comfort at low temperatures due to high radiation energy
- ▶ Versatile, from single-family home up to large systems
- ▶ Energy saving due to low inlet temperatures
- ▶ Various sizes for a wide application range
- ▶ Use of high-quality ecological materials
- ▶ High level use of environmental energy
- ▶ Patented connection between registers
- ▶ Temperature resistant up to 65 °C
- ▶ Flexibility and freedom in design
- ▶ Oxygen barrier up to 80 °C



Low temperature
radiant heat
gives a
comfortable climate

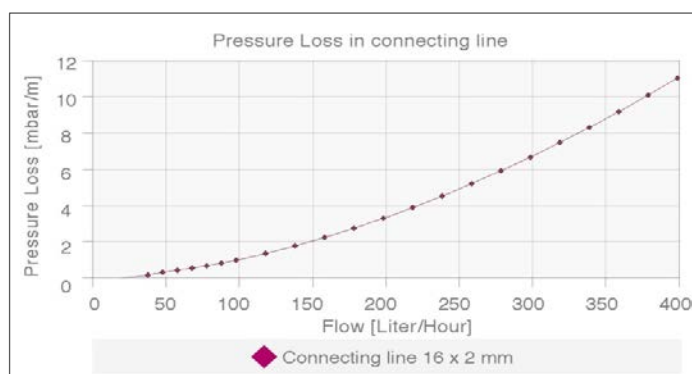
Tested:

IS-HKF pro

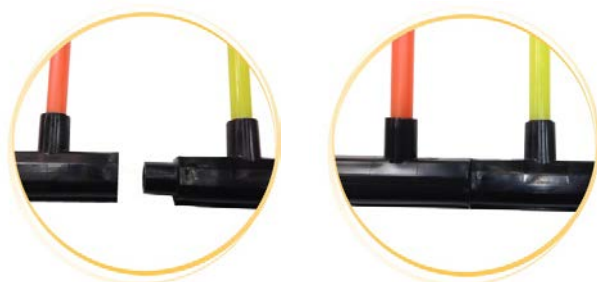
IS-HKF heating power per register RA 7 [W/m²]						IS-HKF heating power per register RA 14 [W/m²]					
Floor cover: ceramic tile, natural- or artificial stone, thermal resistance $R_{\lambda B} = 0,01 - 0,02 \text{ m}^2 \text{ K/W}$											
Average fluid temperature [°C]	Room temperature [°C]					Average fluid temperature [°C]	Room temperature [°C]				
	Qi = 15	Qi = 18	Qi = 20	Qi = 22	Qi = 24		Qi = 15	Qi = 18	Qi = 20	Qi = 22	Qi = 24
30,0	106	84	70	55	42	30,0	72	57	48	39	29
35,0	140	129	105	91	77	35,0	97	81	72	62	52
40,0	175	154	140	127	112	40,0	120	106	96	87	77
45,0	210	187	175	160	147	45,0	144	130	120	110	101
Floor cover: parquet, laminate, thermal resistance $R_{\lambda B} = 0,05 - 0,08 \text{ m}^2 \text{ K/W}$											
30,0	77	62	52	41	31	30,0	54	47	43	30	22
35,0	103	87	77	67	57	35,0	74	62	56	48	41
40,0	129	114	104	92	82	40,0	92	81	74	67	59
45,0	156	140	129	119	109	45,0	111	100	92	85	78
Floor cover: carpet, parquet, thermal resistance $R_{\lambda B} = 0,08 - 0,15 \text{ m}^2 \text{ K/W}$											
30,0	67	53	45	36	27	30,0	48	38	33	26	19
35,0	90	76	67	58	50	35,0	63	53	48	42	36
40,0	112	99	90	81	72	40,0	80	70	65	58	51
45,0	135	122	112	103	84	45,0	97	86	80	73	67

IS-HKF cooling power per register RA 7 [W/m²]							IS-HKF cooling power per register RA 14 [W/m²]						
Floor cover: ceramic tile, natural- or artificial stone, thermal resistance RλB = 0,01 - 0,02 m² K/W													
Cooling medium temperature [°C]	Room temperature [°C]						Cooling medium temperature [°C]	Room temperature [°C]					
	Qi=20	Qi=21	Qi=22	Qi=23	Qi=24	Qi=25		Qi=20	Qi=21	Qi=22	Qi=23	Qi=24	Qi=25
15,0	38,00	44,80	51,60	58,40	65,20	72,00	15,0	24,00	28,80	33,60	38,40	43,20	48,00
16,0	30,00	36,87	43,73	50,60	57,47	64,33	16,0	18,67	23,50	28,33	33,17	38,00	42,83
17,0	22,00	28,93	35,87	42,80	49,73	56,67	17,0	13,33	18,20	23,07	27,93	32,80	37,67
18,0	14,00	21,00	28,00	35,00	42,00	49,00	18,0	8,00	12,90	17,80	22,70	27,60	32,50
19,0	7,00	14,00	21,00	28,00	35,00	42,00	19,0	4,00	11,40	13,70	18,55	23,40	28,25
20,0	-	7,00	14,00	21,00	28,00	35,00	20,0	-	4,80	9,60	14,40	19,20	24,00
21,0	-	-	7,00	14,00	21,00	28,00	21,0	-	-	5,50	10,25	15,00	19,75

Relative humidity (%)	Dew point according to the room temperature [°C]					
	Qi = 20	Qi = 21	Qi = 22	Qi = 23	Qi = 24	Qi = 25
70	14,30	15,30	16,25	17,20	18,00	19,00
60	12,00	13,00	14,00	14,80	15,70	16,70
50	9,20	10,10	11,00	12,00	13,00	13,80
40	6,00	7,00	8,00	8,60	9,50	10,40



Connection technique:



IS-HKF pro

Diameter	
Ø Collector	20 mm
Ø Harp	10 mm

Material	
Type	PE-RT 90 in accordance with DIN 4726, green, semi-transparent
Operating pressure/ temperature	max. 6 bar/ max. 55 °C
Operating pressure/ temperature	max. 4 bar/ max. 65 °C
Oxygen barrier	up to 80 °C
Welding temperature	235 °C

Hydraulics	
max. m ² identical register / circuit	Recommended area of floor register IS-HKF max. 20 m ²
max. length of conneting line	Recommended length of supply and return of 20 m each one

Connections	
Supply	16 mm ext. thread
Return	16 mm int. thread

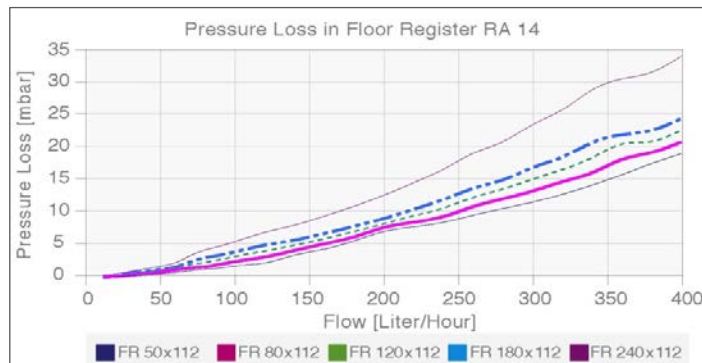
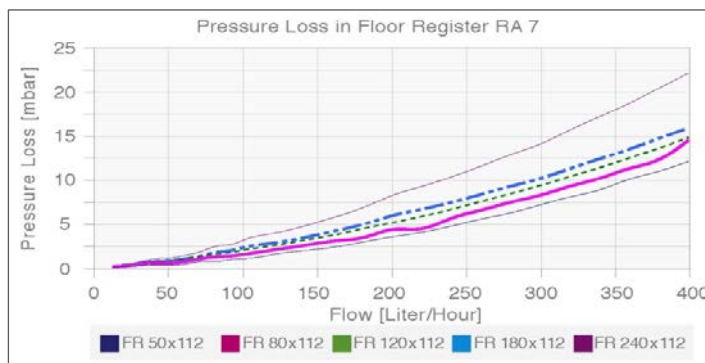
See accesories such as fittings or tools from our catalog.

Width 28 cm	Tube separation RA 7 cm					Tube separation RA 14 cm				
Available length in cm	50	80	120	180	230	50	80	120	180	230
Area in m ²	0,14	0,22	0,34	0,5	0,64	0,14	0,22	0,34	0,5	0,64
Product no.	19000189	19000190	19000191	19000192	19100001	19000208	19000209	19000210	19000211	19110001

Width 56 cm	Tube separation RA 7 cm					Tube separation RA 14 cm				
Available length in cm	50	80	120	180	230	50	80	120	180	230
Area in m ²	0,28	0,45	0,67	1,01	1,29	0,28	0,45	0,67	1,01	1,29
Product no.	19000183	19000184	19000185	19000186	19100002	19000202	19000203	19000204	19000205	19110002

Width 84 cm	Tube separation RA 7 cm					Tube separation RA 14 cm				
Available length in cm	50	80	120	180	230	50	80	120	180	230
Area in m ²	0,42	0,67	1,01	1,51	1,93	0,42	0,67	1,01	1,51	1,93
Product no.	19000177	19000178	19000179	19000180	19100003	19000196	19000197	19000198	19000199	19110003

Width 112 cm	Tube separation RA 7 cm					Tube separation RA 14 cm				
Available length in cm	50	80	120	180	230	50	80	120	180	230
Area in m ²	0,56	0,9	1,34	2,02	2,58	0,56	0,9	1,34	2,02	2,58
Product no.	19000012	19000014	19000006	19000008	19100004	19000013	19000015	19000007	19000009	19110004





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TOMORROW

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