

## Data Sheet Weiser Power

AKOTEC full vacuum tube collectors are a guarantee for high yields, especially in solar heating, even in the cooler transitional periods and even in winter. All components are characterized by a very high quality, performance and service life.

We give a **20-year manufacturer's guarantee** on our product!



### Advantages of our collectors:

- hailproof
- façade, flat roof, pitched roof installation and free standing possible
- tube easily interchangeable with plug-in connection
- optimal readjustment due to freely rotatable tubes
- same tube spacing even with several interconnected collectors
- self-supporting construction
- one person assembly
- collector and NARVA full vacuum tubes made in Germany
- shortest energy amortization



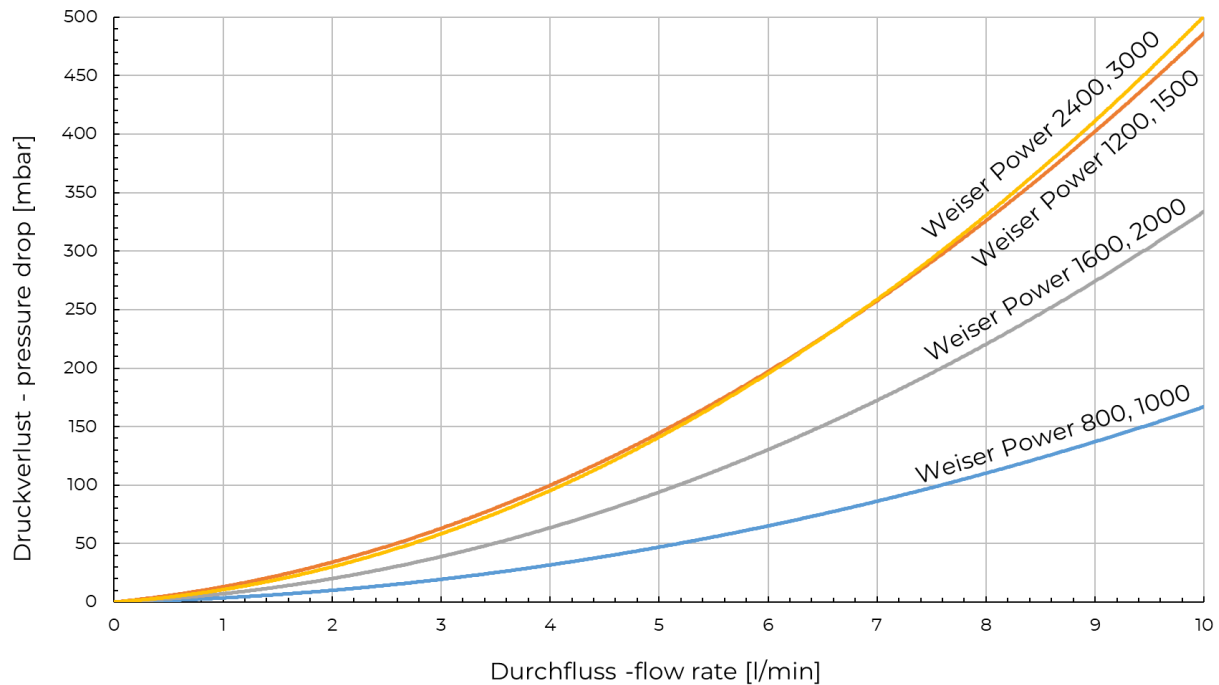
## Technical specifications

<b>Weiser Power</b>		<b>800</b>	<b>1000</b>	<b>1200</b>	<b>1500</b>	<b>1600</b>	<b>2000</b>	<b>2400</b>	<b>3000</b>
number of tubes	-	10	10	15	15	20	20	30	30
reflector	-	No	Yes	No	Yes	No	Yes	No	yes
length	mm	2110							
broad	mm	745		1120		1495		2245	
height	mm	128							
gross collector area	m <sup>2</sup>	1,57		2,36		3,15		4,74	
weight	kg	23,5	29,2	35,3	43,9	47,1	60,1	70,3	89,0
max. pressure load	kg/m <sup>2</sup>	458,7							
max. suction load	kg/m <sup>2</sup>	331,3							
collector output (Würzburg bei 25 °C (T <sub>m</sub> ))	kWh/ module	845	1022	1265	1529	1696	2050	2546	3078
case color	-	RAL9006 satin gloss, on request in one of 213 RAL colors							
operating temperatur	°C	-28 to 195							
<b>energy label information</b>									
collector efficiency $\eta_{col}$	%	44	53	44	53	44	53	44	53
$\eta_0$	-	0,495	0,583	0,495	0,583	0,495	0,583	0,495	0,583
$a_1$	W/(m <sup>2</sup> K)	0,8	1,08	0,8	1,08	0,8	1,08	0,8	1,08
$a_2$	W/(m <sup>2</sup> K <sup>2</sup> )	0,007	0,004	0,007	0,004	0,007	0,004	0,007	0,004
reference surface $A_{sol}$	m <sup>2</sup>	1,57		2,35		3,15		4,74	
IAM	-	0,98	0,98	0,98	0,98	0,98	0,98	0,98	0,98
<b>hydraulics</b>									
collector principle		flowed directly through (df)							
standstill temperature	°C	192 °C							
max. operating pressure	bar	10							
connection	-	AKOTEC df collector connector							
collector content	Liter	1,32		1,98		2,64		3,96	
flow rate H <sub>2</sub> O*	l/min	0,75		1,2		1,5		2,5	
flow rate VT51*	l/min	1		1,5		2,0		3,0	

\* $\Delta T=15$  K,  $G = 1000$  W/m<sup>2</sup>,  $T_m - T_a = 35$  K

## Pressure drop

### Weiser Power - Druckverlust Medium Wasser - bei 10°C



#### Example:

1. a collectorfield with 45 tubes
  - 1 x Weiser Power 3000
  - 1 x Weiser Power 1500
2. target volume flow of water: 3,7 l/min
3. read the pressure loss from the diagram:
  - Weiser Power 1500 bei 3,7 l/min = 90 mbar
  - Weiser Power 3000 bei 3,7 l/min = 90 mbar
4. add pressure losses: 90 mbar + 90 mbar = **180 mbar**

**Note:** Due to the high pressure loss of a Weiser Power 1200 or 1500, only one of these collectors should be used per row of collectors. Please use a Weiser Power 2400 or 3000 instead.

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