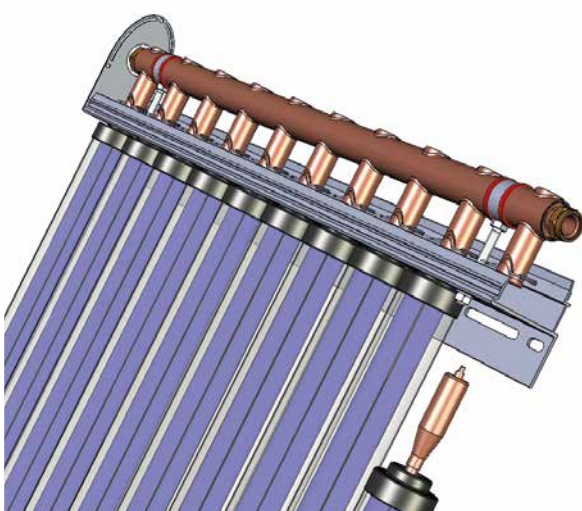


## intrinsic safety HEAT PIPE vacuum tube maximum solar fraction at customised temperature level



Made in Germany

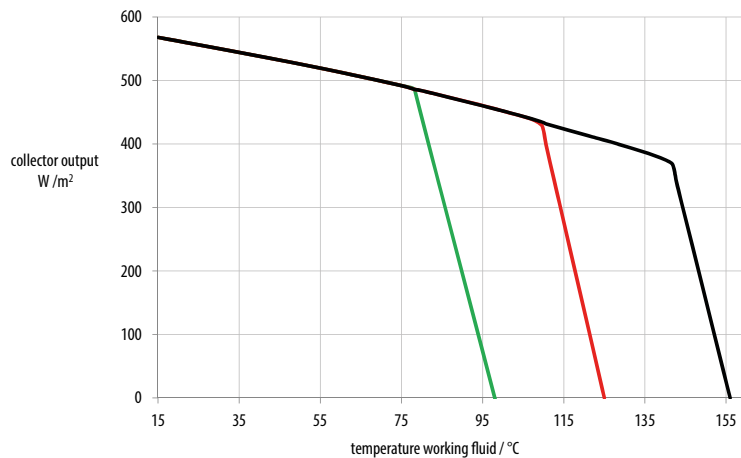
### Product benefits

- intrinsic-safety: no stagnation management needed
- pure physical cut-off behaviour: no wear and tear of components
- easy plug-and-play system
- temperature limit avoids dangerous „steam hammers“ (cavitation)
- variable cut off temperature due to different customer requirements (90 - 160° C system temperature)
- vacuum protected absorber - no corrosion
- stability of vacuum insulation for 20 years
- available in Standard and Power (absorber one or both sides coated)
- high efficiency
- weatherproof nano coating guarantees very high hail resistance (hail proof according EN 12975-2 TÜV Rheinland)
- patented glass-metal connection

### Application areas

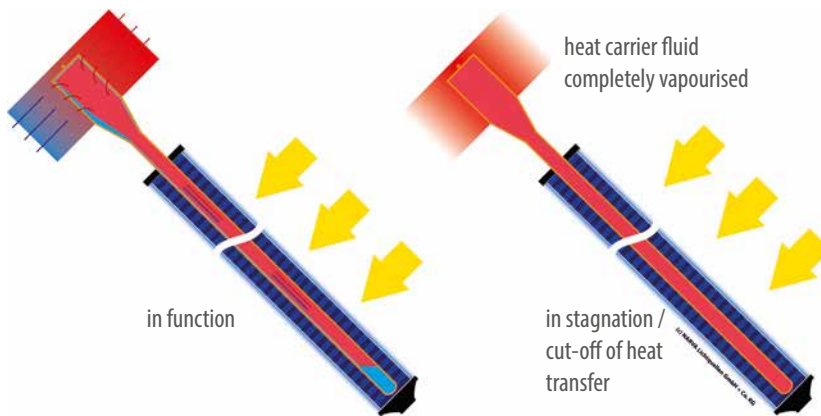
- thermosiphon systems
- solar heating
- process heat

## NARVA technology guarantees intrinsic-safety:



Power output of tube collector at solar radiation of 1.000W/m<sup>2</sup> (collector with 10 tubes)

## Cut-off behavior of NARVA heat pipe tubes



proprietary know-how:  
patent pending 10 213 009 869.6

## Technical data

All data valid for type Standard (absorber one side coated)

Nominal length LT (mm)	800	1.500	1.775	2.000
Tube length (mm)	810	1.510	1.785	2.010
Diameter of glass tube (mm)	56			
Apertureface of glass tube (m <sup>2</sup> )	0,0386	0,0750	0,090	0,1010
Nominal tube output (W) at an irradiance of 1,000 W/m <sup>2</sup>	28	56	67	76
Packaging unit	10	10	10	10
Absorbed heat at 1,000 kWh/a*m <sup>2</sup> temperature difference 40K (KWh/a)	25	50	60	68
Absorbed heat at 1,000 kWh/a*m <sup>2</sup> temperature difference 100K (KWh/a)	21	42	50	57
Heat transmission coefficient linear (W/m <sup>2</sup> *K)	1,12			
Heat transmission coefficient quadratic (W/m <sup>2</sup> *K <sup>2</sup> )	0,004			
efficiency factor	0,750			