

Borehole Drillers and Water Companies place high demands on today's well construction components. Casings should be water tight to eliminate surface water contamination. They should be inexpensive to purchase. Beckert Brunnentechnik ZSM connections satisfy these requirements. The ZSM connections are used many years as riser pipes in sizes of 50 to 300. The direct forming process at the pipe end creates a connection that has

significant price advantages to a conventional lathed connection.

Casing with Steku® connection have the following advantages:

- reliable watertight seal
- high tensile strength
- small outer diameter over the connection
- easy and quick installation
- cost effective pricing

The outer diameters of the solid wall casing correspond to the ISO pipe dimensions. The pipe thickness match to DIN 4900-1. If a higher collapse resistance is required, the wall thickness can be increased accordingly. To determine the needed collapse resistance, the exact installation situation must be known. The ZSM connection guarantees a water tight connection. Ideally, the wedge wire filters at the bottom of the well are made with the same connection. There are different slot widths available. The wedge wire screen collapse resistance can be adapted to the installation situation.

PVC casing can be paired with stainless steel screens. The sizes DN50, DN80 and DN100 with Whitworth thread can be easily combined with wedge

wire screens. For trapezoidal threaded pipes, PVC trapezoidal threads are attached to the screen ends, which fit together with the solid wall casing. Inside diameter of steel pipes according to the ISO pipe series are larger than PVC pipes according to DIN. In that case, a smaller screen must be chosen that better fit to the smaller inner PVC diameter.



Picture 1: Installation of DN500 casing with ZSM connection

Casing and Screens



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nominal diameter DN **50** **80** **100** **125** **150** **200** **250** **300** **400** **500** **600** **800** **1000**

solid wall casing

outside diameter (mm)	60,3	88,9	114,3	139,7	168,3	219,1	273	323,9	406,4	508	609,6	813	1016
pipe wall thickness (mm)	2,0	2,6	3,0	3,0	3,0	4,0	4,0	4,0	5,0	6,0	6,0	8,0	8,0
inside diameter (mm)	54,3	83,7	108,3	133,7	162,3	211,1	265	315,9	396,4	496	597,6	797	1000
collapse resistance (bar)			38,0	24,4	15,5	16,3	9,3	6,0	6,0	5,3	3,2	3,2	1,7
weight (Kg/m)	2,9	5,6	8,3	10,2	12,4	21,5	26,9	32,1	50,2	75,5	90,7	161	202

wedge wire screen

outside diameter (mm)	60,3	88,9	114,3	139,7	168,3	219,1	273	323,9	406,4	508	609,6	810	1016
inside diameter (mm)	48	75,9	99	125,8	152,5	196,5	253,5	301	387,5	486,5	587	785	994
(slot width 0,5mm)													
open area (%)	19,2	19,2	19,2	19,2	19,2	15,6	15,6	15,6	13,2	12,5	12,5	9,6	9,6
collapse resistance (bar)	380	121	60	31	20	22	11	7	8	6	4	4	2
weight (Kg/m)	5,1	6,4	8,0	9,9	11,5	19,9	25,1	29,9	49,1	67,4	81,1	148,5	186,8

connections

ZSM

maximum O.D. (mm)	80	112	140	166	198	254	308	358	440	542			
formed connection	x	x	x	x	x	x	x	x	x	x			
lathed connection											x		

flange

maximum flange O.D.										600	702	905	1108
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