

Bridge slotted screens and casings

This type of screen, already designed by the famous NOLD-factory in 1920 and since that time also known as NOLD-TYPE screen, can today be classified as the „classic“ metallic screen. It has proven it's worth in Germany, Europe and overseas countries because of it's unique features.



Advantages

- HIGH MECHANICAL STRENGTH**, since the slots are merely pressed so that the material is not punched out but remains.
- Depending upon the material, **SMALLER SLOTS** than in punched or saw cut screens **ARE POSSIBLE**.
- The bridge slot design acts as a **GRAVEL PACK RETAINER** allowing for the slots to usually stay unblocked and preserve the hydraulic efficiency. A prerequisite is the right gravel pack design.

MATERIALS:

BLACK MILD STEEL
GALVANIZED MILD STEEL
COATED MILD STEEL
STAINLESS STEEL

- usual quality ST 37-2 to DIN or other weldable steels
- again quality ST 37-2
- again quality ST 37-2, „RILSAN“ coated
- various qualities, depending upon groundwater characteristics and temperatures

For the majority of wells
or also
as a higher grade
or also
for high corrosion resistance
other higher nickel alloys upon request

AISI 304 (DIN 1.4301)
AISI 321 (DIN 1.4541)
AISI 316ti (DIN 1.4571)
AISI 316 L (DIN 1.4404)
DIN 1.4462 (Duplex)

DIAMETERS:

- acc. to **DIN 4922*** up to DN 1000 (40") see table below
- acc. to **ISO/API** standards up to DN 1000* see table below
- Larger diameters acc. to works standards upon request

* „RILSAN“ coated materials only up to DN 800 (32")



TABLES:

Screen and casing dimensions acc. to **DIN 4922**, (Part 1-4)

Nom. Dia.	Clear Bore	Outer Dia.	wall-thickn.
(100)	95mm	108mm	3mm
150	147mm	159mm	3mm
200	192mm	206mm	3mm
250	241mm	258mm	4mm
300	291mm	308mm	4mm
(350)	341mm	358mm	4mm
400	390mm	410mm	5mm
500	489mm	512mm	6mm
600	588mm	612mm	6mm
800	786mm	816mm	8mm
1000	986mm	1016mm	8mm

Screen and casing dimensions acc. to **ISO/API**

Nom. Dia.	Clear Bore	Outer Dia.	wall-thickn.
(100)	101mm	114.0mm	3mm
150	154mm	168.3mm	3mm
200	205mm	219.1mm	3mm
250	256mm	237.0mm	4mm
300	307mm	323.9mm	4mm
(350)	339mm	355.6mm	4mm
400	386mm	406.4mm	5mm
500	483mm	508.0mm	6mm
600	586mm	610.0mm	6mm
800	786mm	816.0mm	8mm
1000	986mm	1016mm	8mm

() no DIN dimensions

COLLAPSE PRESSURE RESISTANCE:

Above wall thicknesses are those acc. to **DIN 4922**.

The calculated collapse pressure rating, in particular for larger dimensions like DN 300/400/500, is around 6 bar only. Therefore thicker walls are recommended for deep settings. This is particularly important for stainless steels, where plate and pipe manufacturers tend to produce with the allowed minus tolerance of 10%.

PLEASE ASK FOR TECHNICAL ADVICE

For the sizes DN 600 - DN 1000 the collapse pressure values may fall considerably acc. to SDR ratio. Thicker walls are recommended inspite of slightly higher costs.

LENGTHS:

In Germany and many European countries it is common to supply so called „coupled“ lengths, i.e. lengths after screwing the screens/casings together. This allows for a more exact positioning of the screens.

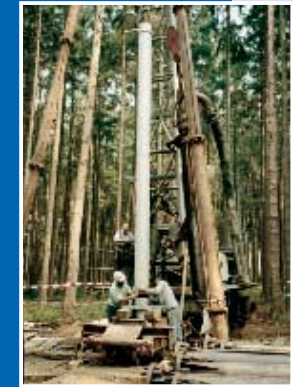
Overseas, lengths of 6 meters overall are preferred. However, there is a limit as to lengths if shipment is to be effected in 20' containers. We have to supply 5.85 meters overall length.

Tooling size	Wallthickn. mm	average slot length mm	bridge slot opening mm	open area ca. %
17	3	18,50	1,0	9,0
17	3	19,25	1,5	14,0
17	3	20,00	2,0	18,0
17	3	20,75	2,5	23,5
17	3	21,50	3,0	27,3
20	4	21,50	1,0	6,5
20	4	22,25	1,5	9,5
20	4	23,00	2,0	13,2
20	4	23,75	2,5	16,0
20	4	24,50	3,0	19,8
20	5	21,50	1,0	6,1
20	5	22,25	1,5	9,0
20	5	23,00	2,0	12,4
20	5	23,75	2,5	15,1
20	5	24,50	3,0	18,7
20	6	21,50	1,0	5,8
20	6	22,25	1,5	8,5
20	6	23,00	2,0	11,7
20	6	23,75	2,5	14,3
20	6	24,50	3,0	17,8
24	8	25,75	1,0	5,0
24	8	26,65	1,5	7,7
24	8	27,50	2,0	10,1
24	8	28,40	2,5	12,6
24	8	29,25	3,0	15,6

Open areas for normal bridge slotting acc. to DIN 4922

The slots may have a tolerance of +/- 0,2mm. Hence the open area values are quoted as „ca.“.

For galvanized and Rilsan coated screens the nom. slot size is 2 mm, otherwise the slots will clog during the coating process.



All couplings may be bought individually!

Couplings

We produce all types of standard couplings. The selection is made acc. to the casing/ screen diameters and the well construction. In any case, customers should watch the coupling O.D., since it is always larger than the pipe diameter (see table below and coupling types next page)



Comparison of outer diameters d₃

	A	B	C	D	E	F	G
DN 100	125mm	125mm	132mm	138mm	140mm	127mm	-
DN 150	180mm	180mm	183mm	192mm	210mm	188mm	-
DN 200	230mm	230mm	250mm	243mm	250mm	244mm	-
DN 250	285mm	285mm	280mm	305mm	298mm	298mm	-
DN 300	335mm	325mm	330mm	345mm	355mm	355mm	-
DN 400	425mm	425mm	440mm	436mm	451mm	432mm	-
DN 500	529mm	529mm	550mm	546mm	556mm	-	602mm
DN 600	629mm	629mm	-	-	-	-	702mm
DN 800	839mm	839mm	-	-	-	-	906mm
DN 1000	1044mm	1044mm	-	-	-	-	1115mm

Larger diameters upon request.

STÜWA

BRUNNENFILTER BOHRBEDARF



Bridge slotted screens and casings

Couplings

Gravelpack screens

Installation tools and accessories



TYPES OF COUPLINGS:

A - Weld collars DIN 4922-1
all diameters

B - Screw collars DIN 4922-1
all diameters

C - Round threads
DIN 4922-2
DN 100 - DN 500

D - Round threads
for ISO/API diameters

E - ZSM (Push-lock)*
DN 100 - DN 500

F - API - STC - threads**
DN 100 - DN 1000

G - Flanges DIN 4922-3
DN 500 - DN 1000

* Small variations for pipes acc. to ISO/API (Works Standard)
** It should be pointed out that API threads larger than DN 150 (6") in stainless steel do gall up. Also, coated and galvanized threads are not possible.

Contents:

Gravelpack screens



This special screen type has the advantage that, should a graded gravelpack be required, the inner coarse pack is already in place and therefore the second outer pack is easily positioned. Careful handling required!

Diameters: same as standard screens but O.D. abt. 50mm (2") more

Coupled lengths: 1.2 and max 3 meters (containerized 2.9 meters)

Installation tools/accessories

We supply all necessary installation tools and accessories:



Steel casing clamp plates and clamps
Steel lifting caps, timber casing clamps
Centralizers, Steel and PVC-Cover plates

It is recommended to always order the above, to avoid unnecessary problems on site!

