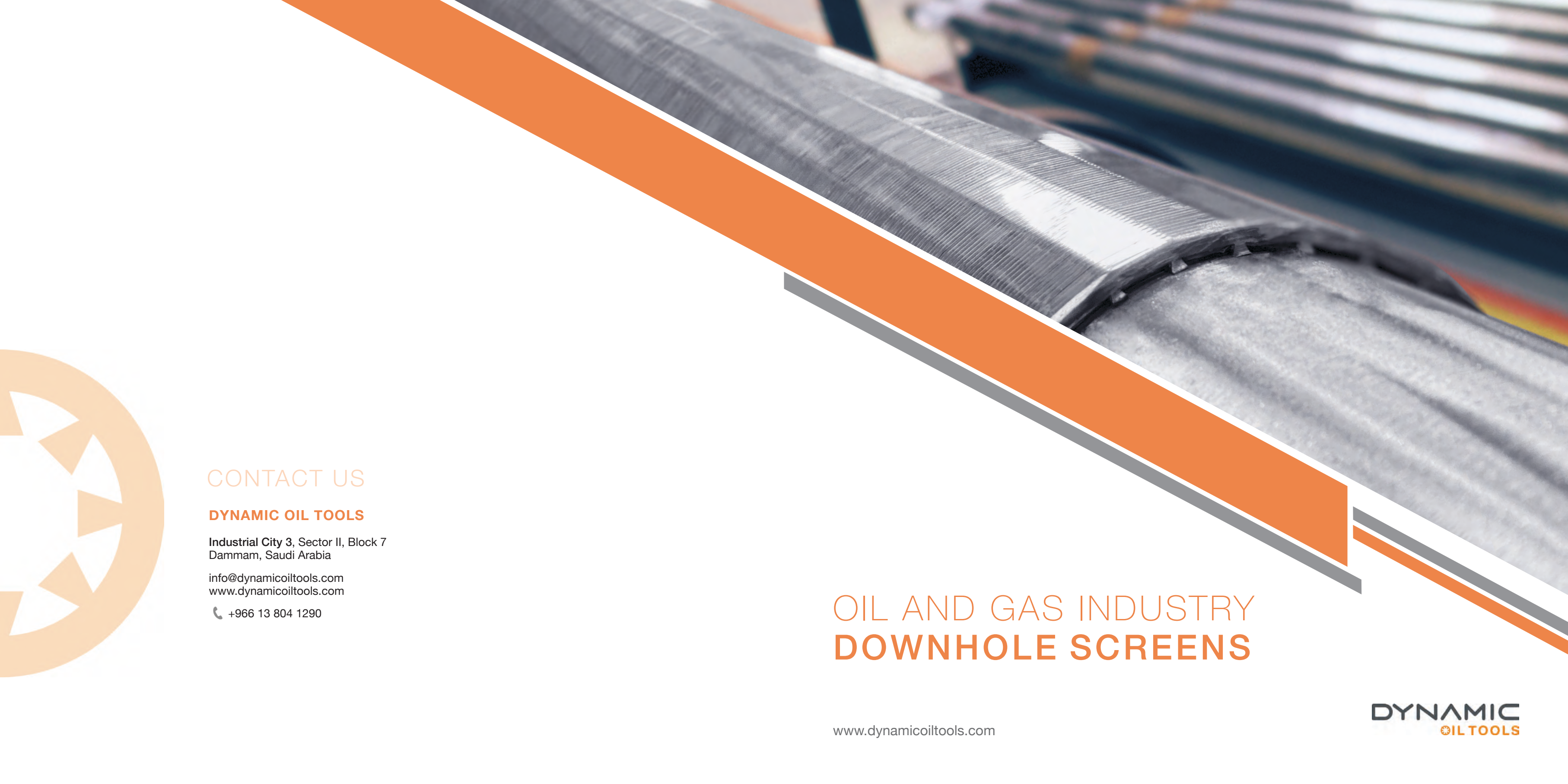




CONTACT US

DYNAMIC OIL TOOLS

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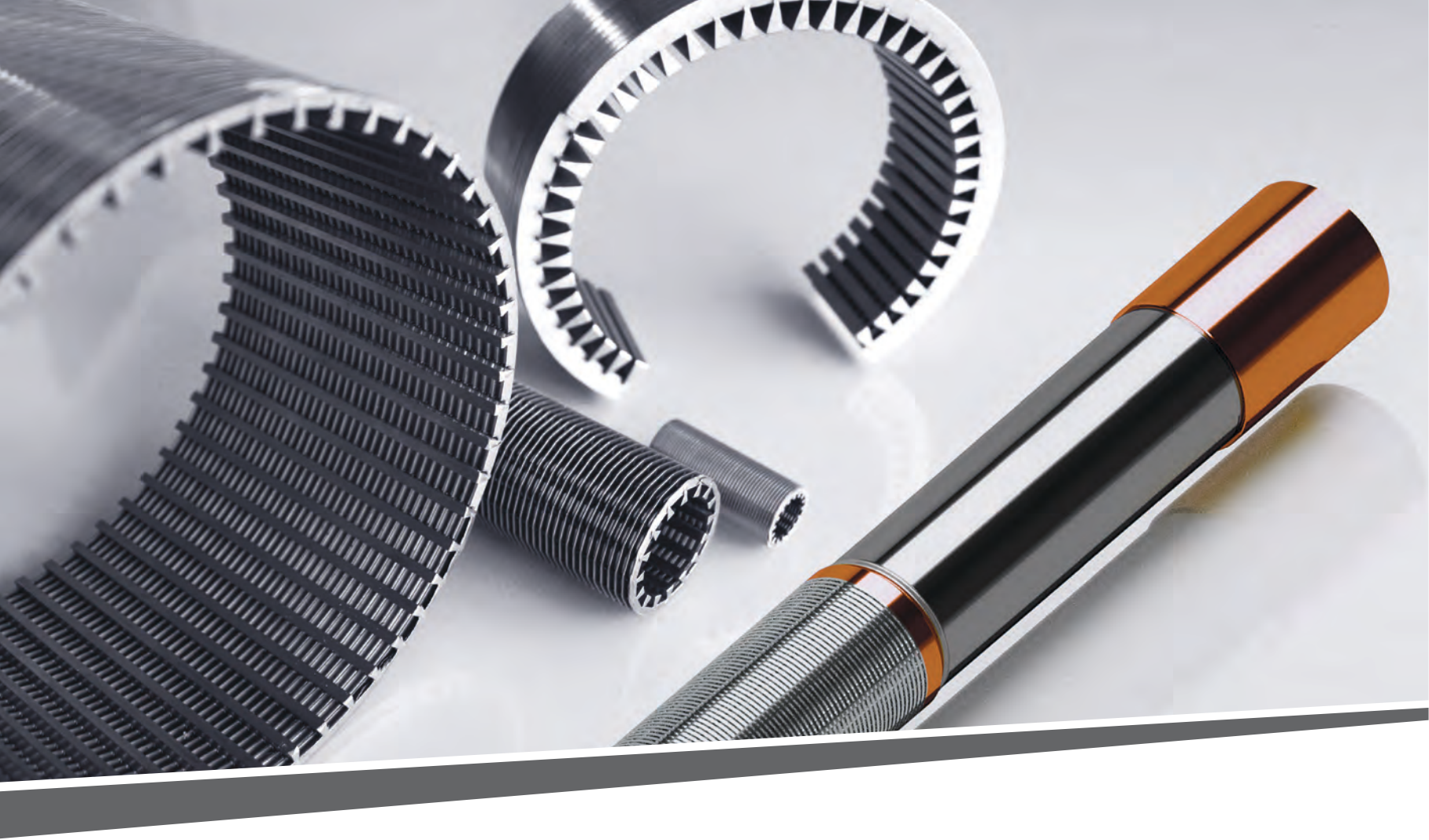
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OIL AND GAS INDUSTRY DOWNHOLE SCREENS

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DYNAMIC
OIL TOOLS



DYNAMICLINK DOWNHOLE SCREEN

Openhole System

The DynamicLink Screen open hole system is a profile wire screen completion system, designed to achieve laminar flow conditions primarily in long horizontal wells. The profile wire design helps maximize sand free production that resists damage and erosion for effective, long term sand control.

The DynamicLink no base pipe screen is robust yet lightweight. It is suitable for high mechanical loads, short radius wellbores, and wells with high rate gas flow conditions. It can also be used with or instead of current completion systems. Whereas conventional sand screens are affected by high inflow velocity of gas or liquid, DynamicLink screens feature specially engineered profiles that force inflow to be distributed more uniformly over a longer length of screens compared with that of conventional screens. This reduces velocity and eliminates erosion hot spots through laminar flow regimes without the need to choke production.

Applications

- ▶ Onshore and Offshore wells
- ▶ Stand-alone completions
- ▶ High Rate Gas environment
- ▶ Thermal applications, including heavy-oil and steam assisted wells

Features

- ▶ No Base Pipe - Minimal Flow restriction
- ▶ Robust design
- ▶ Suitability for Short - Radius well profiles

Benefits

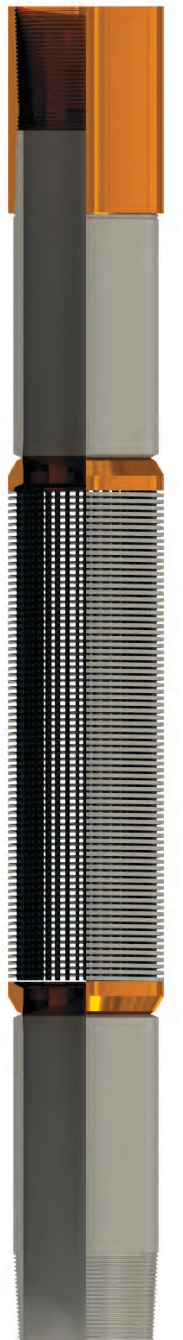
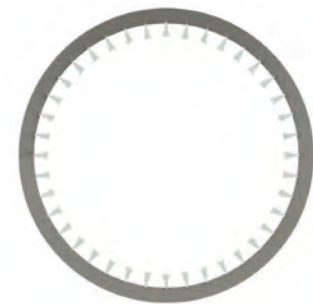
- ▶ Higher reservoir drainage
- ▶ Longer Laminar flow preventing erosion
- ▶ Longer well life and optimized production
- ▶ Plugging resistance

Designs

This screen, with no base pipe, is designed through forming V-SLOT openings with the venturi nozzle profile. This is done by configuring two adjacent profiled wires. The no base pipe screens are manufactured using a standardized process that assembles and welds all wire layers in a single systematic operation.

The structural design of the screen uses the basic mass research technique to calculate its permeability, which depends on the screen chosen structure. This technique considers the permeability and flow characteristics for unconsolidated formations in laminar, transition, and turbulent flows.

SAND CONTROL



DynamicLink Screen Joint Setup

Reference Values As Per API 5CT				Main Dimensions of Screen Joint Components								Screen Parameters		
API Size	API Lbs	API Drift Diameter		Screen ID**		Screen OD*		OD Coupling		OD Lift Area		Screen Configuration	No of Supports	API Coupling
5B CT	ppf	mm	in	mm	in	mm	in	mm	in	mm	in		Pieces	NS
2.375	5.80#	45.0	1.773	47.5	1.870	72.5	2.85	73.0	2.874	60.3	2.375	V35 / V45	20	NS 2.3/8" TUB NU
2.875	8.60#	55.0	2.165	57.5	2.264	87.5	3.44	88.9	3.500	73.0	2.875	V40 / V50	28	NS 2.7/8" TUB NU
3.5	9.20#	72.8	2.867	76.3	3.004	106.3	4.19	108.0	4.252	88.9	3.500	V40 / V50	32	NS 3.1/2" TUB NU
4.000	9.50#	86.9	3.423	88.3	3.476	118.3	4.66	120.7	4.752	101.6	4.000	V40 / V50	40	NS 4.0/0" TUB NU
4.5	11.6#	98.4	3.874	101.6	4.000	125.6	4.94	127.0	5.000	114.3	4.500	V30 / V45	44	NS 4.1/2" BTC
4.5	12.6#	96.4	3.795	101.6	4.000	131.6	5.18	132.1	5.200	114.3	4.500	V40 / V50	44	NS 4.1/2" BTC
4.5	15.2#	94.0	3.701	97.2	3.827	130.3	5.13	132.1	5.200	114.3	4.500	V40 / V50	44	NS 4.1/2" BTC
5.000	18.0#	105.4	4.151	108.9	4.287	138.9	5.47	141.3	5.563	127.0	5.000	V40 / V 50	48	NS 5.0/0" BTC
5.5	20.0#	118.2	4.653	121.7	4.791	151.7	5.97	153.7	6.051	139.7	5.500	V40 / V50	52	NS 5.1/2" BTC
6.625	28.0#	143.9	5.666	147.4	5.803	183.8	7.24	187.7	7.390	168.3	6.625	V40 / V50	60	NS 6.5/8" BTC
7.000	26.0#	156.2	6.150	159.4	6.276	197.8	7.79	200.0	7.875	177.8	7.000	V40 / V50	60	NS 7.0/0" BTC
7.000	35.0#	149.3	5.879	152.8	6.016	190.8	7.51	194.5	7.657	177.8	7.000	V50 / V 50	64	NS 7.0/0" BTC
7.625	39.0#	165.1	6.500	168.6	6.638	210.6	8.29	215.9	8.500	193.6	7.625	V50 / V60	64	NS 7.5/8" BTC
8.625	40.0#	193.0	7.600	196.5	7.736	238.5	9.39	244.5	9.626	219.1	8.626	V50 / V60	76	NS 8.5/8" BTC
9.625	43.5#	219.2	8.630	222.7	8.768	264.7	10.42	270.0	10.630	244.5	9.626	V50 / V60	80	NS 9.5/8" BTC

Other types of connections possible

* Screen OD will be approximatly fush to coupling OD

** Screen ID is built according to API Pipe ID as per ppf (#)





FIT TO BASE SCREEN ON PERFORATED BASEPIPE

This product consists of a wire wrapped screen on a perforated base pipe up to 7"OD and 39 ft length. The screen can be manufactured up to a total length of 28 ft (8.5 m) on the pipe. Meanwhile the joint is perforated casing with a 39 ft (12 m) bed length - 8 spindle drilling machine.

The DOT standard spiral and staggered perforation patterns use Ø 3/8" and Ø 1/2" diameter holes, to create the client's required open area. Upon request, custom hole sizes can be drilled in any number and/or pattern. Every joint perforated by DOT well screen is deburred internally and externally. The size, grade and weight of the base pipe are manufactured as per API casing/tubing specification.



Applications

- ▶ Oil and Gas wells
- ▶ Sand control completions
- ▶ Thermal applications, including heavy-oil and steam assisted wells

Features

- ▶ Available in basepipe sizes ranging from 2 7/8 to 7 in
- ▶ No requirement for welding on basepipe (screen wire is shrink-fitted to basepipe)

- ▶ Coherent, harmonious, and precise slot opening
- ▶ Slot opening from 50 micron up to 2000 micron
- ▶ Customized material grades 304/316L/904/Duplex/Alloy 625

Benefits

- ▶ Longer laminar flow preventing erosion
- ▶ Improved flow efficiency into basepipe
- ▶ Longer well life and optimized production

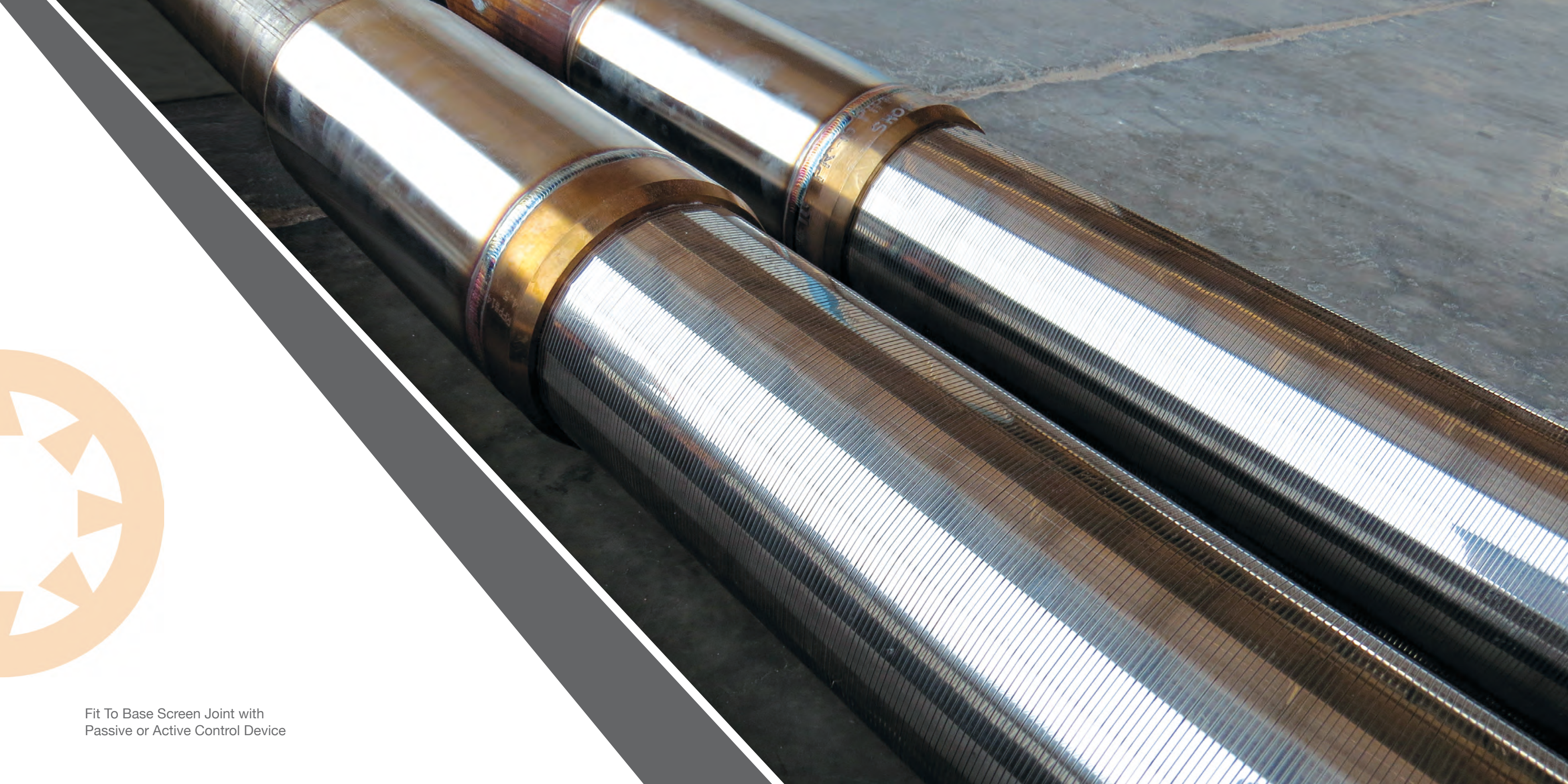
SAND CONTROL



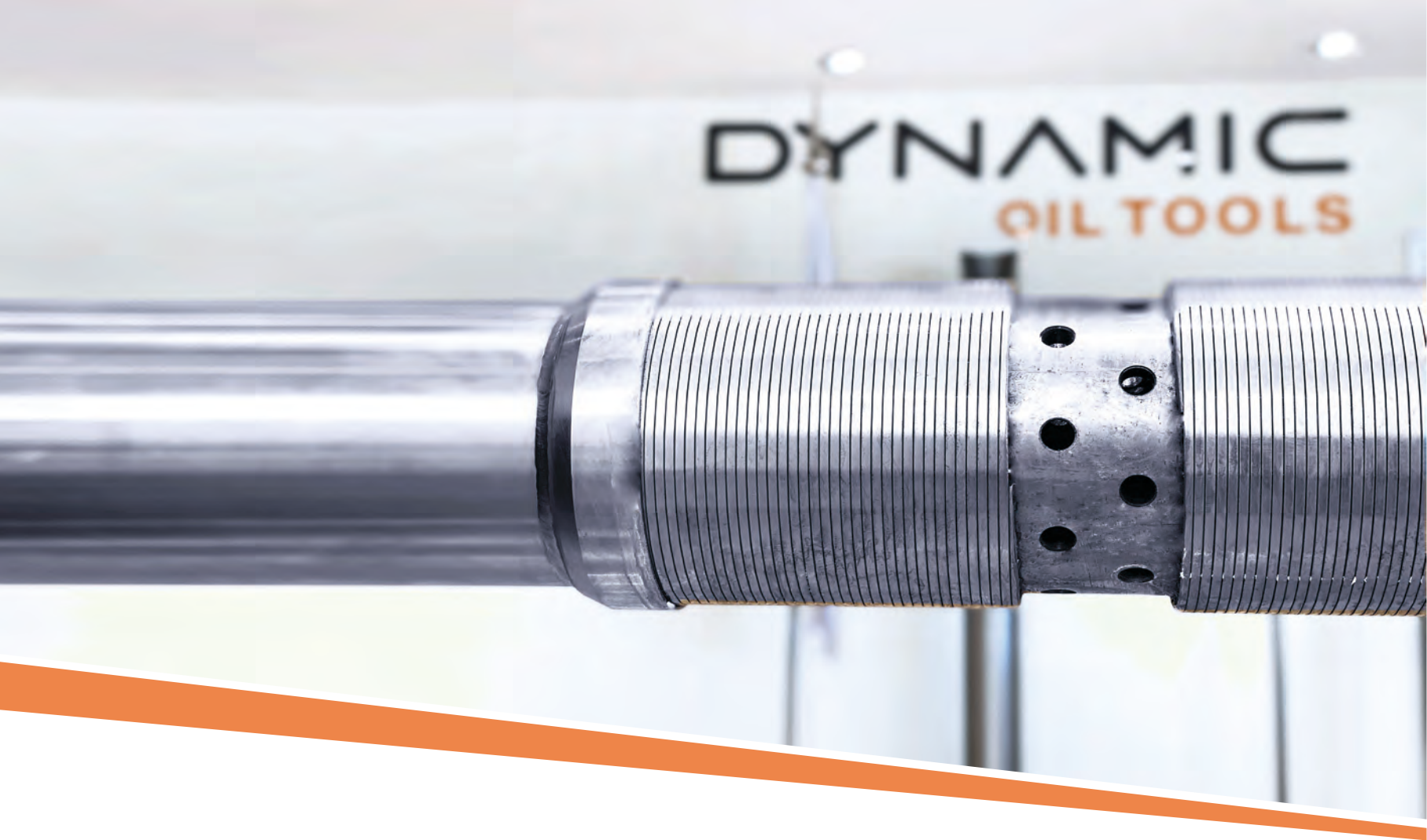
Fit To Base Screen Liner Range

Basepipe Size		Basepipe Weight		Wall Thickness		Basepipe ID		Screen OD		Screen Configuration	No. of Perforation*
in	mm	lbm/ft	kg/m	in	mm	in	mm	in	mm	-	holes per ft
2.375	60.3	4.6	6.8	0.19	4.83	2	50.67	3.005	76.33	V30/V30	24
2.875	73	6.4	9.5	0.217	5.51	2.44	62	3.505	89.03	V30/V30	24
3.5	88.9	9.2	13.7	0.254	6.45	2.99	76	4.13	104.9	V30/V30	24
4	101.6	9.5	14.1	0.266	6.76	3.47	88.09	4.63	117.6	V30/V30	28
4	101.6	11	16.4	0.262	6.65	3.48	88.29	4.63	117.6	V30/V30	28
4.5	114.3	11.6	17.3	0.25	6.35	4	101.6	5.169	131.3	V30/V35	28
4.5	114.3	12.6	18.8	0.255	6.48	3.99	101.35	5.169	131.3	V30/V35	28
5	127	15	22.3	0.296	7.52	4.41	111.96	5.669	144	V30/V35	28
5	127	18	26.8	0.362	9.19	4.28	108.61	5.669	144	V30/V35	28
5.5	139.7	17	25.3	0.304	7.72	4.89	124.26	6.169	156.7	V30/V35	32
5.5	139.7	20	29.8	0.361	9.17	4.78	121.36	6.169	156.7	V30/V35	32
5.5	139.7	23	34.2	0.415	10.54	4.67	118.62	6.169	156.7	V30/V35	32
6.625	168.3	20	29.8	0.288	7.32	6.05	153.64	7.294	185.28	V30/V35	36
6.625	168.3	24	35.7	0.352	8.94	5.92	150.39	7.294	185.28	V30/V35	36
6.625	168.3	28	41.7	0.417	10.59	5.79	147.09	7.294	185.28	V30/V35	36
7	177.8	23	34.2	0.317	8.05	6.37	161.7	7.669	194.8	V30/V35	36

* Upon request, custom hole sizes can be drilled in any number and any pattern.



Fit To Base Screen Joint with
Passive or Active Control Device



SCREEN JACKET ON PERFORATED BASE PIPE

This wire wrapped screen jacket is installed on a perforated base pipe up to Ø 7"- 39ft length. The screen can be manufactured up to a total length of 10 m, from corrosion resistant materials. The perforated liner or pre-perforated casing is manufactured with a 12m (39ft) bed length, 8 spindle drilling machine.

The DOT standard spiral and staggered perforation patterns use Ø 3/8" and Ø 1/2" diameter holes, to create the client's required open area. Upon request, custom hole sizes can be drilled in any number and any pattern. Every joint perforated is deburred internally and externally.

The size, grade and weight of the base pipe are manufactured as per API casing/tubing specification. The screen jacket is fully pickled and passivated for maximum corrosion resistance.



Applications

- ▶ Oil and Gas wells
- ▶ Sand control completions
- ▶ Installations with Inflow or injection control devices
- ▶ Thermal applications, including heavy-oil and steam assisted wells

Features

- ▶ Welded rings isolate jacket from mechanical loads on base pipe
- ▶ Available in base pipe sizes from 2 7/8 to 7 in

- ▶ Coherent, harmonious, and precise slot opening
- ▶ Multiple unique surface and support wire profile options
- ▶ Slot opening from 50 micron up to 2000 micron
- ▶ Customized material grades 304/316L/904/Duplex/Alloy 625

Benefits

- ▶ Longer laminar flow preventing erosion
- ▶ Improved flow efficiency into basepipe
- ▶ Longer well life and optimized production

SAND CONTROL



Screen Jacket on Perforated Basepipe

Basepipe Size		Basepipe Weight		Wall Thickness		Basepipe ID		Screen OD		Screen Configuration	No. of perforation*
in	mm	lbm/ft	Kg/m	in	mm	in	mm	in	mm	-	Holes per ft
2.375	60.3	4.6	6.8	0.19	4.83	2	50.67	3.005	76.33	V30/V30	24
2.875	73	6.4	9.5	0.217	5.51	2.44	62	3.505	89.03	V30/V30	24
3.5	88.9	9.2	13.7	0.254	6.45	2.99	76	4.13	104.9	V30/V30	24
4	101.6	9.5	14.1	0.266	6.76	3.47	88.09	4.63	117.6	V30/V30	28
4	101.6	11	16.4	0.262	6.65	3.48	88.29	4.63	117.6	V30/V30	28
4.5	114.3	11.6	17.3	0.25	6.35	4	101.6	5.169	131.3	V30/V35	28
4.5	114.3	12.6	18.8	0.255	6.48	3.99	101.35	5.169	131.3	V30/V35	28
5	127	15	22.3	0.296	7.52	4.41	111.96	5.669	144	V30/V35	28
5	127	18	26.8	0.362	9.19	4.28	108.61	5.669	144	V30/V35	28
5.5	139.7	17	25.3	0.304	7.72	4.89	124.26	6.169	156.7	V30/V35	32
5.5	139.7	20	29.8	0.361	9.17	4.78	121.36	6.169	156.7	V30/V35	32
5.5	139.7	23	34.2	0.415	10.54	4.67	118.62	6.169	156.7	V30/V35	32
6.625	168.3	20	29.8	0.288	7.32	6.05	153.64	7.294	185.28	V30/V35	36
6.625	168.3	24	35.7	0.352	8.94	5.92	150.39	7.294	185.28	V30/V35	36
6.625	168.3	28	41.7	0.417	10.59	5.79	147.09	7.294	185.28	V30/V35	36
7	177.8	23	34.2	0.317	8.05	6.37	161.7	7.669	194.8	V30/V35	36

* Upon request, custom hole sizes can be drilled in any number and any pattern.



DYNAMICFLOW PREMIUM SCREEN

SAND CONTROL

Dynamicflow Premium Screen is designed to resist deformation and maintain reliable sand control under down hole conditions. This screen extends the life of the well and helps safeguard production in erosive environments. In irregular bore shapes, this screen can increase production and reliability due to its protective dimpled perforated shroud.

With a much higher flow area, this screen is thinner than a pre-packed screen, providing less fluid pressure differential across the screen. Dynamicflow Premium Screen is manufactured with three layers that form the screen jacket. The first layer constitutes the wire wrapped screen which has a continuous slot manufactured with very high precision.

The second layer is a perfect seam metal mesh welded on top of the wire-wrap screen, which together build a reliable sand control assembly by acting as a high-strength filter. The metal mesh can be either a dutch weave or a square weave, depending on the desired pore size.

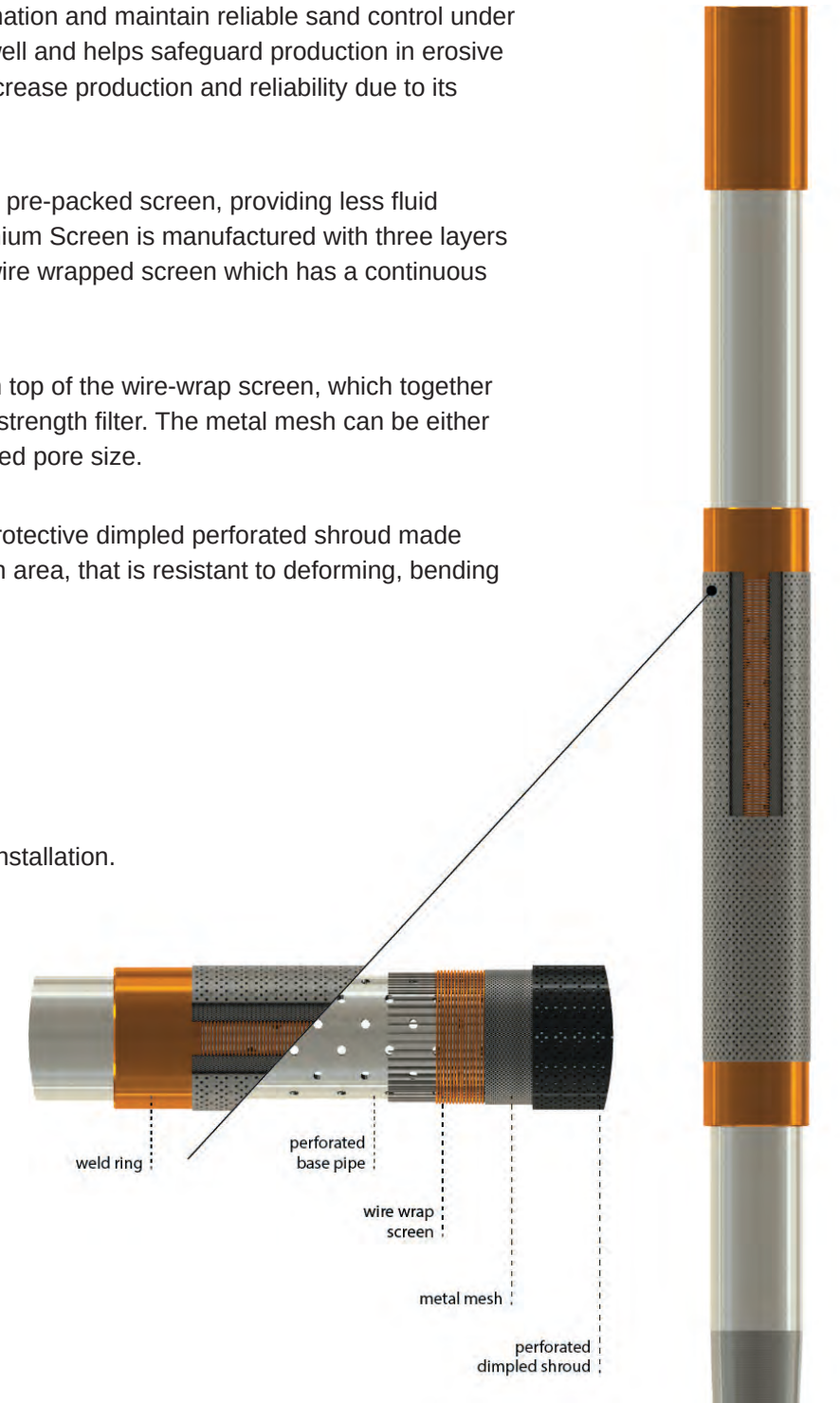
The third layer of the Dynamicflow Premium Screen is a protective dimpled perforated shroud made of high-quality stainless steel (or Inconel) with a large open area, that is resistant to deforming, bending and corrosion.

Applications

- ▶ Open hole (vertical and horizontal), deviated and cased hole well completion
- ▶ Able to pass medium range hole deviation angle for installation.
- ▶ Suitable for sour wells and acidizing wells

Features and Benefits

- ▶ Robust design extends the life span of the filtration system decreasing maintenance cost
- ▶ Efficient screen flow distribution due to optimized base pipe and shroud perforation patterns
- ▶ Venturi effect of wire wrap screen extends laminar flow conditions up to 3 times, reducing well erosion



FIT TO BASE SCREEN JOINT WITH PASSIVE OR ACTIVE CONTROL DEVICE

The basepipe is machined to accomodate different kinds of active or passive flow control valves. The screen is then wrapped as per client specifications directly on the pipe. Rings and covers are manufactured with high precision as per clients request, then assembled and welded into the basepipe.

Applications

- ▶ Suitable for flow control applications with or without sand control
- ▶ Suitable for vertical, deviated and horizontal completions

Features

- ▶ No elastomers, all welded construction
- ▶ Simple construction
- ▶ Robust design

Benefits

- ▶ Installations with flow control devices
- ▶ Optimized flow performance into the basepipe
- ▶ Control of unwanted water/gas production
- ▶ Can be re-configured to fit other applications



*Any type of ICD

FLOW CONTROL

