COMBINATION TOOL

The OSI COMBINATION TOOL is designed and engineered to maximize artificial lift system efficiency. Using OSI's patented "DUAL FLOW" connections, the COMBINATION TOOL is a versatile and effective means of fluid conditioning by controlling sand, gas, and solids.

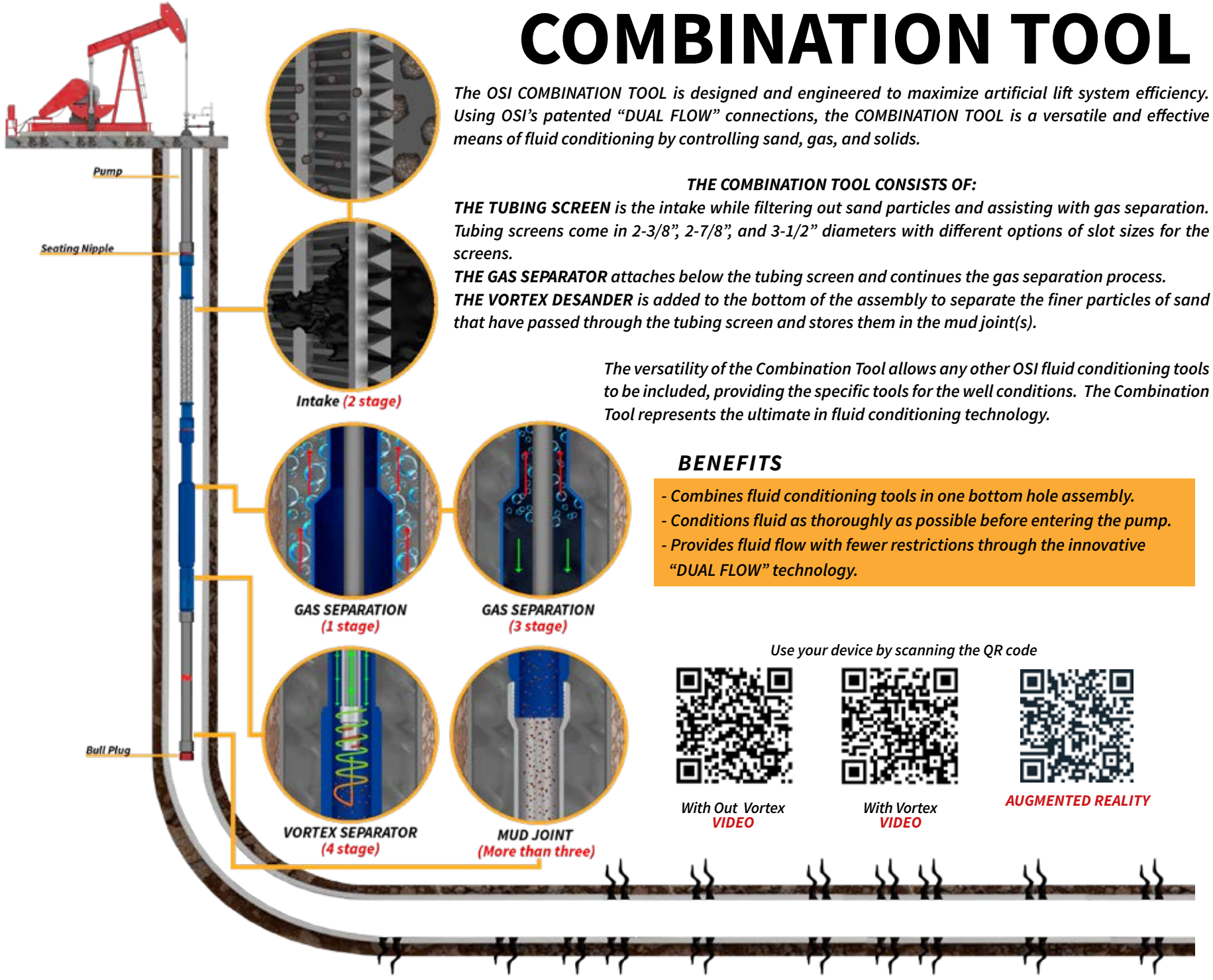
THE COMBINATION TOOL CONSISTS OF:

THE TUBING SCREEN *is the intake while filtering out sand particles and assisting with gas separation. Tubing screens come in 2-3/8", 2-7/8", and 3-1/2" diameters with different options of slot sizes for the screens.*

THE GAS SEPARATOR *attaches below the tubing screen and continues the gas separation process.*

THE VORTEX DESANDER *is added to the bottom of the assembly to separate the finer particles of sand that have passed through the tubing screen and stores them in the mud joint(s).*

The versatility of the Combination Tool allows any other OSI fluid conditioning tools to be included, providing the specific tools for the well conditions. The Combination Tool represents the ultimate in fluid conditioning technology.



BENEFITS

- *Combines fluid conditioning tools in one bottom hole assembly.*
- *Conditions fluid as thoroughly as possible before entering the pump.*
- *Provides fluid flow with fewer restrictions through the innovative "DUAL FLOW" technology.*

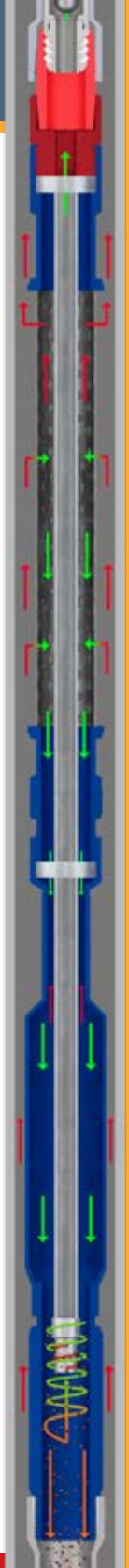
Use your device by scanning the QR code

With Out Vortex ***VIDEO***

With Vortex ***VIDEO***

AUGMENTED REALITY

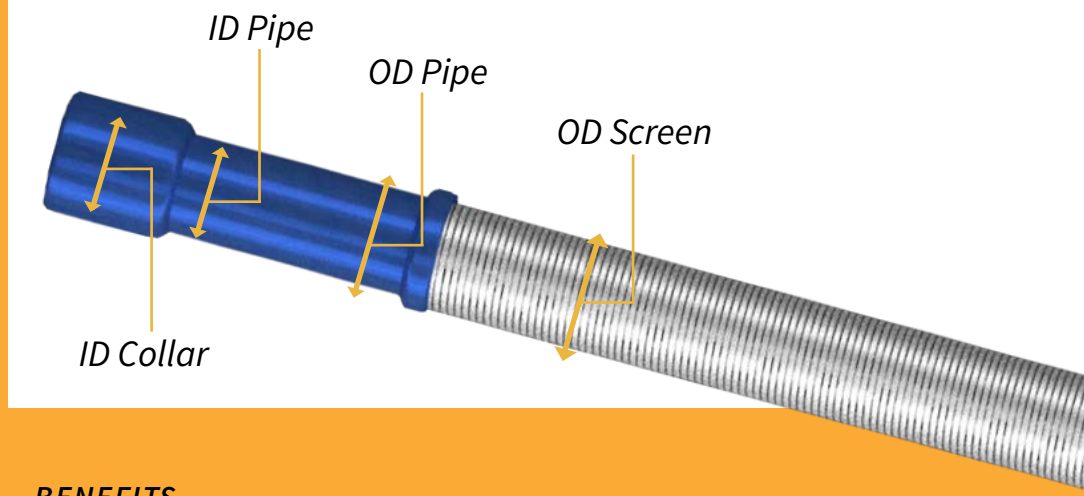
HOW IT WORKS



Technical Specifications

TUBING SCREEN

	Pipe (in)		Screen (in)	Collar (in)	
Size	OD	ID	OD	OD	ID
2-3/8"	2.375	1.941	2.87	3.063	2.375
2-7/8"	2.875	2.441	3.27	3.668	2.875
3-1/2"	3.5	3.066	3.94	4.5	3.5



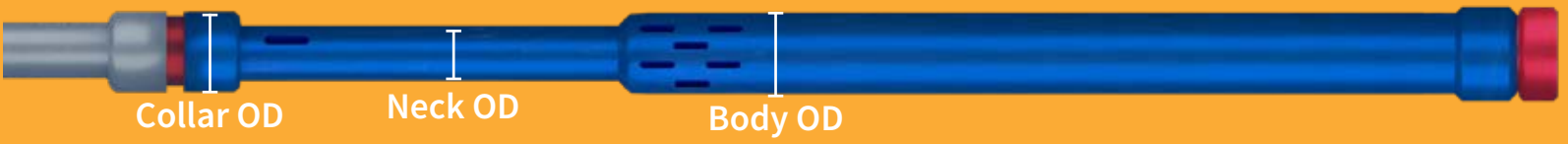
GAS SEPARATOR BODIES

	Neck (in)		Body (in)		Collar (in)	
Sizes	OD	ID	OD	ID	OD	ID
2 - 3/8" x 3"	2.375	1.941	3	2.5	3.063	2.375
2 - 7/8" x 3 - 1/2"	2.875	2.441	3.5	3	3.668	2.875
2 - 7/8" x 4"	2.875	2.441	4	3.5	3.668	2.875
2 - 7/8" x 4 - 1/2"	2.875	2.441	4.5	4	3.668	2.875
3 - 1/2" x 4 - 1/2"	3.5	3.066	4.5	4	4.5	3.5
3 - 1/2" x 5 - 1/2"	3.5	3.066	5.5	5	4.5	3.5

SAND SIZE PARTICLES		SLOT SIZE
US mesh size	Microns	
40 / 60	400 - 250	12
20 / 40	840 - 400	12 - 15
16 / 30	1190 - 500	15 - 20
12 / 20	1680 - 841	20 - 30

BENEFITS

- Combined tools for severe sand and gas problems.
- Multiple configurations with different principles of operation.
  - Bernoulli Principle
  - Venturi effect
  - Coalescence effect
  - Gravitational force
  - Centrifugal force
- Conditions fluid before entering critical pump's sections.
- Larger body annulus to allow reduce the fluid velocity (Depending on the numbers of bodies used).



HELIX SIZES		
EUE TUBING SIZE		
2-3/8	2-7/8	3-1/2
HE1.1	HE2.1	HE3.1
HE1.2	HE2.2	HE3.2
HE1.3	HE2.3	HE3.3
HE1.4	HE2.4	HE3.4
HE1.5	HE2.5	HE3.5
HE1.6	HE2.6	HE3.6
HE1.7	HE2.7	HE3.7
HE1.8	HE2.8	HE3.8
HE1.9	HE2.9	HE3.9

*The tool capacity is function of the well conditions: pump parameters, perforations zone, well inclination, gas volume, so on. To get an optimal design fill up the OSI's data sheet. Longer assemblies provide larger capacities.

**The slot size is also function of the real granulometric distribution of the well combined with the production, chemical conditions, fluid properties and water cut.

For productions higher than flow chart please use multiple screens assembles or contact 432-580-7111 for more technical assistance.