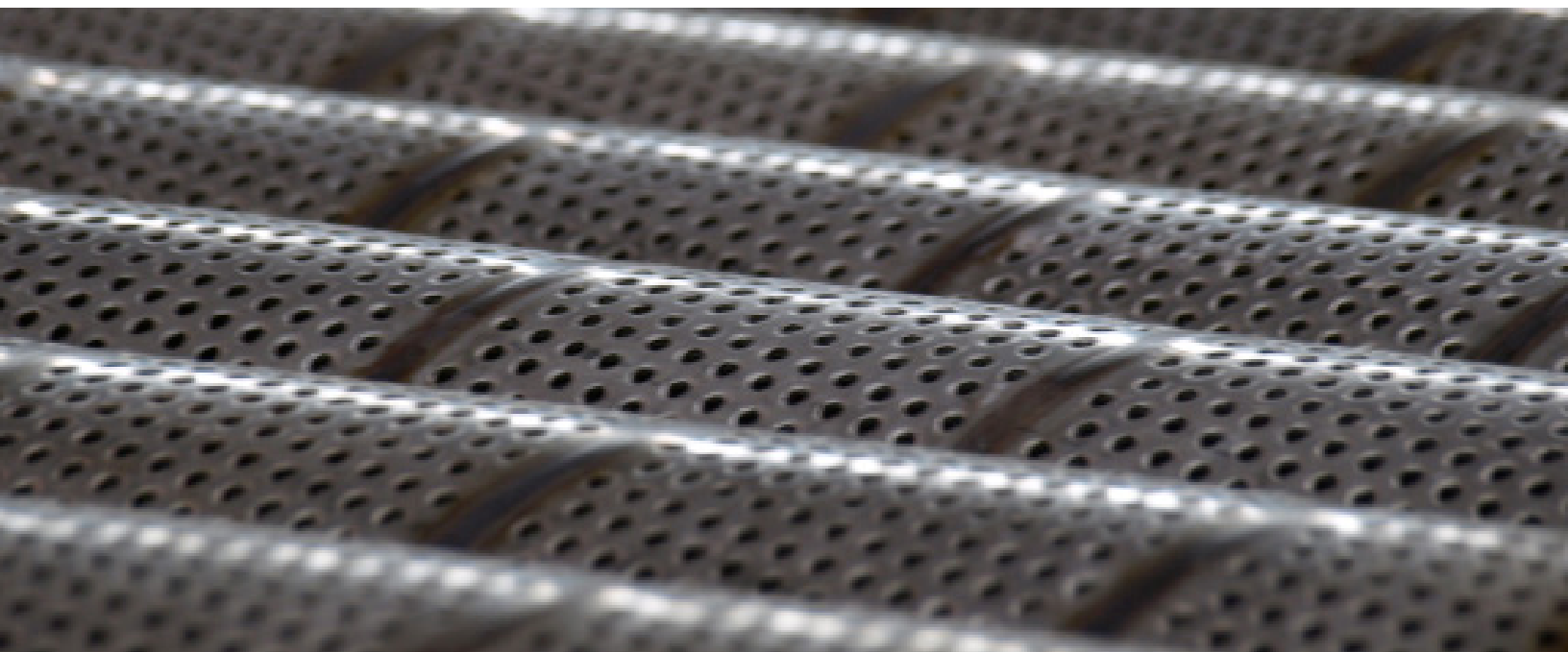




COMPLETION SERVICES

SECTION 9

Well Screens & ICD Technologies



WELL SCREENS AND ICD TECHNOLOGIES

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EconoWeld™

Superior Completion Services' **EconoWeld™** screens, a slip-on wire wrap jacket welded directly to the base pipe, are tough, long-lasting screens designed for gravel pack and standalone screen installations inside perforated casing and limited openhole environments. Superior Completion Services combines innovative wire-wrap technology and advanced manufacturing processes to create **EconoWeld™** screens. This product fits the need when an economical solution is required for your specific application.

APPLICATIONS

- Cased hole applications and short barefoot completion environments
- Particularly well suited for fracturing, high-rate gravel pack and standalone operations

Features and Benefits

- Innovative wire shape provides maximum erosion resistance and strength compared with standard configurations
- Higher number of ribs provides greater strength and tolerance for the life of the screen
- Improved design reduces washouts caused by necking of wrap wire
- Heavy-duty construction enables the screen jacket to maintain gauge tolerances
- Superior Completions Services is capable of shaping custom wire configurations with our own in-house wire-shaping mill
- Wire jacket welded directly to the base pipe offers savings
- Conventional and heavy-duty (HD) wire options are available



EconoWeld™

TECHNICAL DATA

EconoWeld™														
Base Pipe OD		Base Pipe Weight		Perforations				Standard Screen OD		HD Screen OD		Inlet Area		
inch	mm	lb/ft	kg/m	inch	mm	holes/ft	holes/m	inch	mm	inch	mm	0.006in Slot	0.008in Slot	0.0012in Slot
2.375	60.3	4.6	6.8	3/8	95.3	48	157	2.82	71.6	2.86	72.6	6.58	8.92	12.84
2.875	73.0	6.4	9.5	3/8	95.3	48	157	3.35	85.09	3.46	87.8	8.04	10.47	15.06
3.500	88.9	9.2	13.7	3/8	95.3	60	197	3.97	100.8	4.00	101.6	9.53	12.40	17.84
4.000	101.6	9.5	14.1	3/8	95.3	60	197	4.46	113.3	4.52	114.8	10.71	13.95	20.07
4.500	114.3	11.6	17.3	3/8	95.3	72	236	4.95	125.7	5.03	127.8	11.98	15.60	22.44
5.000	127.0	15.0	22.3	3/8	95.3	72	236	5.49	139.4	5.54	140.7	13.18	17.16	24.69
5.500	139.7	17.0	25.3	3/8	95.3	84	276	5.96	151.4	6.03	153.1	14.38	18.72	26.94
6.625	168.3	24.0	35.7	3/8	95.3	84	276	7.13	181.1	7.18	182.3	17.09	22.25	32.01
7.000	177.8	23.0	34.2	3/8	95.3	96	315	7.49	190.2	7.55	191.8	18.00	23.43	33.72

Metallurgy: Screens available in 316L or nickel alloy 825; base pipe available in a multitude of materials upon request.
 Wire Combo: Standard screen uses 0.090"x0.075" "keystone" shaped wrap wire and 0.090"x0.140" "house" shaped rib wire.
 HD screen uses 0.060"x0.100" "keystone" shaped wrap wire and 0.090"x0.140" "house" shaped rib wire.
 EconoWeld™ screens features Keystone shaped wrap wire for plugging resistance.

REFERENCES

Wire-wrapped and premium well screens brochure

ProWeld™

Superior Completion Services' **ProWeld™ Screens**, a slip-on wire wrap jacket attached to the base pipe, are tough, long-lasting screens designed for gravel pack and standalone screen installations inside perforated casing and limited openhole environments. Superior Completion Services combines innovative wire-wrap technology and advanced manufacturing processes to create **ProWeld™ Screens**. The result is a product that outperforms conventional wire-wrap screens with superior strength and an extended service life. Gauge accuracy is validated through the use of photometric automated gauge measuring system on every jacket manufactured.

APPLICATIONS

- Cased and limited openhole environments
- Particularly well-suited for fracturing, high-rate gravel pack and standalone operations

Features and Benefits

- Innovative wire shape provides maximum erosion resistance and strength compared with standard configurations
- Higher number of ribs provides greater strength and tolerance for the life of the screen
- Improved design eliminates necking of the wrap wire as it is being welded to the rib
- Heavy-duty construction enables the screen jacket to maintain gauge tolerance
- Superior Completion Services is capable of shaping custom wire configurations with our own in-house wire-shaping mill
- Conventional and heavy-duty (HD) wire options are available to meet your needs



ProWeld™

TECHNICAL DATA

ProWeld™														
Base Pipe OD		Base Pipe Weight		Perforations				Standard Screen OD		HD Screen OD		Inlet Area		
inch	mm	lb/ft	kg/m	inch	mm	holes/ft	holes/m	inch	mm	inch	mm	0.006in Slot	0.008in Slot	0.0012in Slot
2.375	60.33	4.6	6.8	3/8	95.3	48	157	2.82	71.60	2.86	72.64	6.66	8.67	12.84
2.875	73.03	6.4	9.5	3/8	95.3	48	157	3.35	84.07	3.38	85.85	7.85	10.22	14.71
3.500	88.90	9.2	13.7	3/8	95.3	60	197	3.97	99.82	4.00	101.6	9.34	12.15	17.49
4.000	101.60	9.5	14.1	3/8	95.3	60	197	4.46	112.52	4.52	114.80	10.52	13.70	19.71
4.500	114.30	11.6	17.3	3/8	95.3	72	236	4.97	126.20	5.03	127.76	11.74	15.29	22.00
5.000	127.00	15.0	22.3	3/8	95.3	72	236	5.45	138.43	5.41	139.70	12.94	16.85	24.24
5.500	139.70	17.0	25.3	3/8	95.3	84	276	5.96	151.38	6.03	153.16	14.14	18.41	26.49
6.625	168.28	24.0	35.7	3/8	95.3	84	276	7.13	182.37	7.18	181.36	16.84	21.92	31.55
7.000	177.80	23.0	34.2	3/8	95.3	96	315	7.49	190.20	7.55	191.77	17.74	23.09	33.23

Metallurgy: Screens available in 316L or nickel alloy 825; base pipe available in a multitude of materials upon request.
 Wire Combo: Standard screen uses 0.090"x0.075" "keystone" shaped wrap wire and 0.090"x0.140" "house" shaped rib wire.
 HD screen uses 0.060"x0.100" "keystone" shaped wrap wire and 0.090"x0.140" "house" shaped rib wire.
 ProWeld™ TOP screens feature Keystone shaped wrap wire for plugging resistance.

REFERENCES

Wire-wrapped and premium well screens brochure

ProWeld™ Precision TOP

Superior Completion Services' **ProWeld™ Precision TOP** is a wire jacket directly wrapped to the base pipe providing a shrink fit coupled jacket. Delivering a robust, long-lasting screen designed for extended reach and long horizontal laterals as gravel pack and standalone screen installations inside perforated casing and openhole environments. Superior Completion combines innovative wire-wrap technology and advanced manufacturing processes to create **ProWeld™ Precision TOP Screens**. The result is a product that outperforms conventional wire-wrap screens with superior strength and an extended service life. Gauge accuracy is validated through the use of an optical photometric automated gauge measuring system.

APPLICATIONS

- Long extended-reach and horizontal wells
- Standalone screen with Inflow Control Device, ICD
- Cased and openhole environments
- Particularly well-suited for fracturing, high-rate gravel pack and standalone operations
- Delivering selectivity by adapting a sliding sleeve to receive a direct wrapped wire jacket such as ProWeld™ Precision TOP for a robust product

Features and Benefits

- Innovative wire shape provides maximum erosion resistance and strength compared with standard configurations
- Higher number of ribs provides greater strength and tolerance for the life of the screen
- Improved design reduces washouts caused by necking of wrap wire
- Heavy-duty construction enables the screen jacket to maintain gauge tolerance
- Superior Completion Services is capable of shaping custom wire configurations with our own in-house wire-shaping mill
- Conventional and heavy-duty (HD) wire options are standard



ProWeld™ Precision TOP

TECHNICAL DATA

ProWeld™ Precision TOP														
Base Pipe OD		Base Pipe Weight		Perforations				Standard Screen OD		HD Screen OD		Inlet Area		
inch	mm	lb/ft	kg/m	inch	mm	holes/ft	holes/m	inch	mm	inch	mm	0.006in Slot	0.008in Slot	0.0012in Slot
2.375	60.33	4.6	6.8	3/8	95.3	48	157	2.77	70.35	2.81	71.37	6.66	8.67	12.84
2.875	73.03	6.4	9.5	3/8	95.3	48	157	3.27	83.05	3.31	84.07	7.85	10.22	14.71
3.500	88.90	9.2	13.7	3/8	95.3	60	197	3.89	98.80	3.94	100.08	9.34	12.15	17.49
4.000	101.60	9.5	14.1	3/8	95.3	60	197	4.42	112.27	4.46	113.28	10.52	13.70	19.71
4.500	114.30	11.6	17.3	3/8	95.3	72	236	4.91	124.71	4.96	125.98	11.74	15.29	22.00
5.000	127.00	15.0	22.3	3/8	95.3	72	236	5.41	137.41	5.46	138.68	12.94	16.85	24.24
5.500	139.70	17.0	25.3	3/8	95.3	84	276	5.92	150.37	5.97	151.64	14.14	18.41	26.49
6.625	168.28	24.0	35.7	3/8	95.3	84	276	7.03	178.56	7.10	180.34	16.84	21.92	31.55
7.000	177.80	23.0	34.2	3/8	95.3	96	315	7.43	188.72	7.48	189.88	17.74	23.09	33.23

Metallurgy: Screens available in 316L or nickel alloy 825; base pipe available in a multitude of materials upon request.

Wire Combo: Standard screen uses 0.090"x0.075" "keystone" shaped wrap wire and 0.090"x0.140" "house" shaped rib wire.

HD screen uses 0.060"x0.100" "keystone" shaped wrap wire and 0.090"x0.140" "house" shaped rib wire.

ProWeld TOP screens feature Keystone shaped wrap wire for plugging resistance.

REFERENCES

Wire-wrapped and premium well screens brochure

SlimFlo™ Pre-Packed

Superior Completion Services' **SlimFlo™ Pre-Packed** Screens are designed with large spacer ribs on the outer screen for better concentricity and higher flow capacity. Used in conjunction with gravel packs, these robust screens provide an additional level of protection against erosion during sand placement and secondary protection against voids in the gravel pack.

APPLICATIONS

- Sand control
- High-rate water, gravel and frac-pack operations
- Openhole and horizontal completions
- When the potential for an incomplete pack is possible due to high leak-off zone, etc.

Features and Benefits

- Designed to have an annular pre-pack of 0.200 in. (5.08 mm) or greater
- Uses keystone- or house-design wrapped wire
- Pre-packing process helps ensure void-free, tight, uniform sand packs
- Intermittent spacer ribs maintain concentricity and ensure a uniform pack annulus
- Protects against erosion during sand placement
- Provides barrier to sand production through voids in the gravel pack
- Greater number of ribs increases tensile strength and provides a rounder, smoother jacket surface
- Available in standard and heavy-duty (HD) options



SlimFlo™ Pre-Packed

TECHNICAL DATA

SlimFlow™ Pre-Packed								
Base Pipe OD		Standard Screen OD		HD Screen OD		0.006in Slot	Inlet Area 0.008in Slot	0.0012in Slot
inch	mm	inch	mm	inch	mm	in ² /ft	in ² /ft	in ² /ft
2.375	60.33	3.14	79.76	3.19	81.03	7.54	9.81	14.12
2.875	73.03	3.64	92.46	3.68	93.47	8.73	11.36	16.35
3.500	88.90	4.3	109.22	4.32	109.73	10.21	13.29	19.13
4.000	101.60	4.81	122.17	4.86	123.44	11.4	14.84	21.35
4.500	114.30	5.29	134.36	5.33	135.38	12.64	16.45	23.67
5.000	127.00	5.81	147.57	5.83	148.08	13.82	17.99	25.89
5.500	139.70	6.31	160.27	6.33	160.78	15.01	19.54	28.11
6.625	168.28	7.44	188.98	7.46	189.48	17.60	23.03	33.14
7.000	177.80	7.82	198.62	7.84	199.13	18.6	24.21	34.83

Metallurgy: Screens available in 316L or nickel alloy 825; base pipe available in a multitude of materials upon request.

Wrap Combo:

Standard Screen: The outer jacket uses 0.090"x0.075" "keystone" shaped wrap wire on 0.060"x0.100" "house" shaped rib wire. The inner jacket utilizes 0.090"x0.075" "keystone" shaped wrap wire on 0.090"x0.075" "keystone" shaped rib wire or a 0.075" "round" wire

HD Screen: The outer jacket comprises of a 0.090"x0.075" "keystone" shaped wrap wire on 0.090"x0.140" "house" shaped rib wire. The inner jacket utilizes 0.090"x0.075" "keystone" shaped wrap wire on 0.090"x0.075" "keystone" shaped rib wire or a 0.075" "round" wire

REFERENCES

Wire-wrapped and premium well screens brochure

EconoFlo™

EconoFlo™ is an economical woven or stacked metal mesh screen solution that delivers premium performance for use in brown fields, heavy oil, and wherever steam cycling or injection is required. When the economics of an application do not merit the premium cost of a preferred metal mesh screen with larger inflow area, **EconoFlo™** is the answer.

EconoFlo™ consists of a single layer of woven mesh material or a stacked layer of square weaves. It can be equipped with a drainage layer for use in applications requiring Inflow Control Devices (ICD) for balanced inflow control or sliding sleeves for on/off control. EconoFlo™ offers flow-through areas ranging from 40% to 60% depending on the designed micron rating of the filter layer.

EconoFlo™ offers a premium solution as a qualified and field-proven product when thermal cycling is required in cyclic steam stimulation, steam injectors or steam assisted gravity drain applications. Many customers default to the use of slotted liners and wire-wrap jacket screens on the basis of cost alone. However, slotted liners have limited inflow areas, from 3% to 5%, and wire-wrap jackets only offer inflow areas that range from 6% to 12% depending on the slot opening size. The inherent challenges of these types of solutions are their tendency to plug or produce sand over time and to not withstand the multiple thermal cycling effects during steaming operations.

EconoFlo™ has much higher inflow areas: up to ten times greater than traditionally used slotted liners and wire-wrap jackets. It continues to function long after plugging would be encountered with other options and its free-floating jacket enables use in cyclic temperature environments. **EconoFlo™** can also be used as a standalone solution in lieu of the more expensive method of gravel packing. EconoFlo™ can extend the time between production and re-drilling due to plugged screens by months or years, if not until the end of the wells' production life cycle.

APPLICATIONS

- Low cost environments (brown fields & heavy oil)
- Thermal cycling
- Standalone screen
- Run with Inflow Control Devices (ICD)
- Install with sliding sleeves



EconoFlo™

Features and Benefits

- Metal mesh design offers up to ten times greater inflow area than other options
- Low cost — competitive with slotted liners and wire-wrap jackets
- Minimized manufacturing cost delivers a low-cost solution with premium performance
- Large 316Lss wire diameters used in weaved or stacked mesh design permits the use of acid treatments without loss of sand control
- Swaging filter assembly to base pipe eliminates any need for welding
- Free-floating jacket enables movement of the screen assembly independent of the base pipe in thermal applications
- Inner drainage layer allows compatibility with inflow control devices and sliding sleeves
- Incorporation of Inflow Control Devices (ICD) and sliding sleeves enables balanced inflow control and on/off control
- Multi-Pore Geometry (MPG), or a bi-modal distribution metal mesh option, provides varied apertures throughout the filter media — ideal for when sand grain distribution would normally require gravel packing and when standalone screen is preferred
- Mid-joint break accommodating use of centralizers

TECHNICAL DATA

Available sizes 3.500 to 6.625 in. (88.9 to 168.3 mm)
Temperature rating up to 650°F (343°C)

EconoFlo™									
Base Pipe OD		Base Pipe Weight		Size		Perforations		Screen OD	
inch	mm	lb/ft	kg/m	inch	mm	holes/ft	holes/m	inch	mm
3.5	88.9	9.2	13.69	0.375	9.53	60	197	4.000	101.60
4	101.6	9.5	14.14	0.375	9.53	60	197	4.500	114.30
4.5	114.3	11.6	17.26	0.375	9.53	72	236	5.000	127.00
5.5	127	15	22.23	0.375	9.53	72	236	5.000	139.70
5	139.7	17	25.32	0.375	9.53	84	276	6.000	152.40
6.625	169.3	24	65.72	0.375	9.53	84	276	7.125	180.98

Metallurgy: Mesh available in 316L; base pipe available in a multitude of materials upon request.
Multi-mode and single-mode weave micron ratings available.

SureFlo™

SureFlo™ is a premium metal mesh screen using diffusion bonding techniques which allows for the manufacture of the filter media with “NO” welding on the filter material itself. By its mere design, the product is very robust with the mechanical strengths approaching that of a direct wrap on a pipe wire jacket screen such as our **ProWeld™ TOP** product. **SureFlo™** is designed to be run in rugged environments such as long open hole horizontal sections and extended reach drilling applications; the need to push/pull or rotate the downhole sand face completion assembly over cutting beds or drilling ledges to reach the desired depth is required here.

SureFlo™ offers flexibility when it comes to customized screen design. Its modular design creates an ease of manufacturing to accommodate accessories, such as centralizers, swell packers, and blank sections to fit each application. SureFlo offers the multi-layer filter media and protective perforated shroud diffusion bonded together as a single unit increasing the robustness of the end product.

APPLICATIONS

- **Openhole**
 - High pull-/push-off values required to reach target depth
 - Long horizontal sections
 - Standalone screen, SAS
 - Gravel pack
- **Cased hole**
 - High collapse resistance required
 - Frac-pack
 - Gravel-pack

Features and Benefits

- Combining the mesh filter layer and the protective shroud into a single component leads to increased overall strength
- Combined filter mesh, drainage mesh and protective shroud creating a monolithic robust fit for use assembly
- Filter lengths of four foot sections accommodate customization without impacting lead times
- No end rings required, reducing the overall outside diameter of SureFlo over 10% less than the customary premium mesh screens
- Optimized manufacturing process yielding significant cost savings to the end user
- Filter layer available in a multitude of configurations and micron sizes accommodating “fit for purpose” design



SureFlo™

TECHNICAL DATA

Available sizes 2.375 to 6.625 in. (60.3 to 168.3 mm)
Temperature rating up to 650°F (343°C)

SureFlo™									
Base Pipe OD		Base Pipe Weight		Size		Perforations		Screen OD	
inch	mm	lb/ft	kg/m	inch	mm	holes/ft	holes/m	inch	mm
2.375	60.33	4.6	6.85	0.375	9.53	48	157	2.875	73.03
2.875	73.003	6.4	9.52	0.375	9.53	48	157	3.375	85.73
3.5	88.9	9.2	13.69	0.375	9.53	60	197	4.000	101.60
4	101.6	9.5	14.14	0.375	9.53	60	197	4.500	114.30
4.5	114.3	11.6	17.26	0.375	9.53	72	236	5.000	127.00
5	127	15	22.23	0.375	9.53	72	236	5.500	139.70
5.5	139.7	17	25.32	0.375	9.53	84	276	6.000	152.40
6.625	169.3	2.4	65.72	0.375	9.53	84	276	7.125	180.98

Metallurgy: Mesh available in 316L and Alloy 20; base pipe available in a multitude of materials upon request.

SureFlo™ CT

SureFlo™ CT is a premium metal mesh screen designed for use in slim hole or coiled tubing applications. **SureFlo™ CT** offers a reduced outside diameter in a woven metal mesh design making it an excellent offering for remediation where tubular restrictions exist. **SureFlo™ CT** is equipped with a filter layer, plain square weave and a shroud all bonded together. The process of bonding creates a single unit and a much more robust offering.

SureFlo™ CT offers flexibility when it comes to customized screen design. Its modular design creates an ease of manufacturing to accommodate accessories such as centralizers, swellable packers and blank sections to fit each application. **SureFlo™ CT** offers the multilayer filter media and protective perforated shroud diffusion bonded together as a single unit increasing the robustness of the end product.

APPLICATIONS

- Remediate failed sand control
- Slimhole
- Tubing completions run on coiled tubing or wireline
- Vertical, deviated or openhole

Features and Benefits

- Combining the mesh filter layer and the protective shroud into a single component leads to increased overall strength.
- Combined filter mesh, drainage mesh and protective shroud creating a monolithic robust fit for use assembly.
- Filter lengths of four foot sections, accommodate customization without impacting lead times.
- No end rings required reducing the overall outside diameter of SureFlo™ CT over 10% less than the customary premium mesh screens.
- Optimized manufacturing process yielding significant cost savings to the end user.
- Filter layer available in a multitude of configurations and micron sizes accommodating "fit for purpose" design.



SureFlo™ CT

TECHNICAL DATA

SureFlo™ CT													
Base Pipe OD		Base Pipe ID		Screen OD		Screen Weight		Coupling OD		Standard Length			
inch	mm	inch	mm	inch	mm	lb/ft	kg/m	inch	mm	Total Length		Screen Length	
										ft	m	ft	m
1.315	33.40	1.049	26.6	1.62	41.1	2.9	4.3	1.66	42.4	10	3.048	8	2.44
1.66	42.15	1.38	35.1	1.97	50	3.8	5.6	2.054	52.2	10	3.048	8	2.44
1.9	48.26	1.61	40.9	2.21	56.1	4.4	6.5	2.2	2.2	10	3.048	8	2.44
2.094	53.19	1.751	44.5	2.401	60.99	5	7.4	2.5	2.5	10	3.048	8	2.44

Metallurgy: Mesh available in 316L and Alloy 20; base pipe in a multitude of materials upon request.

REFERENCES

Wire-wrapped and premium well screens brochure

DynaFlo™ FM

Superior Energy Services-Completion Services **DynaFlo™ FM** (Fixed Mesh) screens are heavy duty premium metal mesh sand-exclusion screens designed for use in long openhole horizontal completions and cased gravel/frac-packed environments.

DynaFlo™ FM screens are the result of a unique manufacturing process that efficiently forms and tightly secures the protective shroud, drainage layer and filter media around an inner support shroud layer. This tightly formed, well-anchored filtration media is ideally suited for downhole environments which can require a premium metal mesh screen with high burst and collapse ratings.

Superior quality manufacturing provides a screen with the highest quality, strength and durability. **DynaFlo™ FM** is a premium metal mesh screen offering the installation performance challenging that of wrap-on-pipe wire jacket screens. **DynaFlo™ FM** is an economical premium metal mesh screen solution that is customizable to meet your needs.

APPLICATIONS

- Long horizontal openhole completions
- Cased hole
 - High-rate water-packs
 - Frac-pack
- Vertical or deviated wellbore
- With Inflow Control Device (ICD)
- Sliding sleeve wrapped screens
- Injectors
- Producers

Features and Benefits

- Tightly bound filter media delivers a robust solution for high rate wells where vibration may be an issue
- Unique construction improves burst and collapse ratings of premium metal mesh screens
- The design of the DynaFlo™ FM accommodates any need for customization



DynaFlo™ FM

TECHNICAL DATA

DynaFlo™ FM									
Base Pipe OD		Base Pipe Weight		Size		Perforations Hole Spacing		Screen OD	
inch	mm	lb/ft	kg/mm	inch	mm	holes/ft	holes/m	inch	mm
2/375	60.33	4.6	6.90	0.375	9.53	48	157	2.98	75.7
2.875	73.03	6.4	9.50	0.375	9.53	48	157	3.48	88.4
3.5	88.90	9.2	13.70	0.375	9.53	60	197	4.10	104.1
4	101.60	9.5	14.14	0.375	9.53	60	197	4.60	116.8
4.5	114.30	11.6	17.26	0.375	9.53	72	236	5.10	129.5
5	127.00	15	22.23	0.375	9.53	72	236	5.60	142.2
5.5	139.70	17	25.32	0.375	9.53	84	276	6.10	155.0
6.625	169.3	24	35.72	0.375	9.53	84	276	7.23	183.6

SYSTEM COMPONENTS

- Perforated base pipe
- Inner perforated shroud, 16 gauge standard size
 - 304Lss standard material; also available in higher alloys as required
 - Available in required gauge size to meet mechanical needs
- Filtration media
 - 316Lss standard material; also available in higher alloys as required
 - Available in various weave patterns
- Drainage/Separation layer
 - Standard in 20x20 (PSW); other size PSW's available
 - Outer perforated shroud, 14 gauge standard size
 - 304Lss standard material; also available in higher alloys as required
 - Available in required gauge size to meet mechanical needs

DynaFlo™ Interceptor™

DynaFlo™ Interceptor™ is a premium metal mesh downhole sand exclusion device that employs a unique manufacturing process. This process enables the individual components to be constructed as an integral unit, creating a strong and durable product.

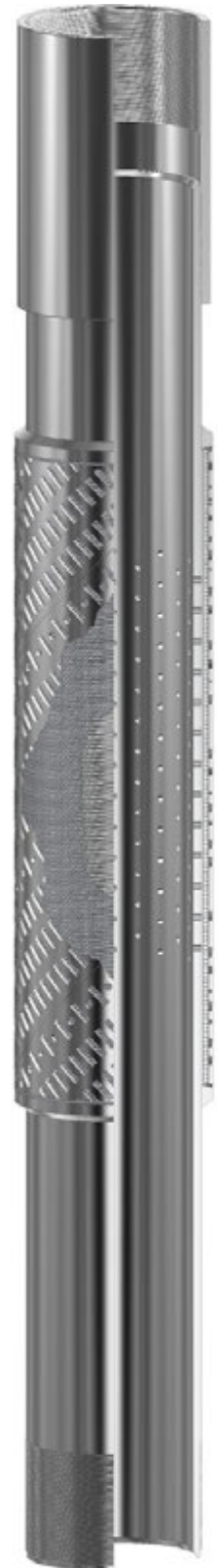
The **DynaFlo™ Interceptor™** screen's improved design enables it to perform in the most challenging of environments, including open hole horizontals, short radius wells, sidetracks and re-entries. **DynaFlo™ Interceptor™** offers added protection for virtually any gravel pack/frac-pack application. It is equipped with an inner drainage wire wrap layer, a high inflow area woven filter media and a dimpled outer shroud to protect the filter layer from direct impact of solid-laden fluids. **DynaFlo™ Interceptor™** can stand up to the harshest environments and still deliver impeccable filtering performance.

APPLICATIONS

- Long horizontal gravel packs
- Standalone screen (SAS) in openhole
- Horizontal wellbores
- Producing wells
- Injector wells
- High-rate water and frac-packs
- With ICD or AICD completions

Features and Benefits

- Available in a variety of micron ratings and metallurgy
 - Enables customizing for each and every application
- Equipped with an inner wire wrap drainage layer
 - Provides support for the mesh filtration layer offering it mechanical strength
- Mesh filtration layer
 - Assures maximum inflow area and filtration performance
 - Sized to gravel/proppant or PSD of reservoir grain sizes
- Dimple Shroud
 - Provides protection of filtration layer during installation and over the production life of cycle well
 - Delivers long term protection against direct impact of particles against mesh filtration layer & minimizes erosion effects
- Special manufacturing process that compresses all layers into one
 - Eliminates any welding or heat from welding filtration layer



DynaFlo™ Interceptor™

TECHNICAL DATA

DynaFlo™ Interceptor™									
Base Pipe OD		Base Pipe Weight		Perforations		Hole Spacing		Screen OD	
inch	mm	lb/ft	kg/mm	inch	mm	holes/ft	holes/m	inch	mm
4.500	114.3	11.6	17.26	0.375	9.56	72	236	5.32	78.2
5.500	139.7	17	25.32	0.375	9.56	84	276	6.37	90
6.625	169.3	24	35.72	0.375	9.56	84	276	7.45	106.7

Pore Size Availability

Fine	110µm < d10 , 200µm
Medium	200µm < d10 , 300µm
Coarse	300µm < d10 , 350µm

**DynaFlo™ Interceptor™ a Superior Energy - Completion Services Branded Product Manufactured by First Filter, Inc.

DynaFlo™ DB

Superior Completion Services' **DynaFlo™ Diffusion-Bonded (DB) Screens** are heavy-duty premium sand-exclusion screens designed for use in gravel pack and standalone screen installations in cased and openhole environments. DB screens offer 30 to 40% greater surface area than deep media screens.

DynaFlo™ DB Well Screens incorporate DB-laminated filter media comprised of either three or four layers of wire mesh selected to provide accurate particle size control while maximizing flow rate and strength. The DB filter media is protected by an outer perforated shroud. The entire assembly is welded onto a specified base pipe to provide a rugged sand-exclusion screen. The base pipe is either perforated (standard) or non-perforated with special production control valves positioned as needed.

APPLICATIONS

- Sand control
- High-rate water packs, fracturing and openhole environments
- Vertical, deviated or horizontal wells
- Horizontal openhole completions with Inflow Control Device, ICD

Features and Benefits

- Extensive selection of media available for a wide range of formation sand sizes to optimize sand control effectiveness
- Fixed pore geometry enhances sand control under high operating pressures
- Enhanced screen properties include rigidity, strength and resistance to distortion, abrasion and vibration
- Mesh porosity: 55% minimum
- Multiple-layered design incorporates filtration and drainage layers into a single rigid cartridge



DynaFlo™ DB

TECHNICAL DATA

DynaFlo™ DB									
Base Pipe OD		Base Pipe Weight		Perforations		Hole Spacing		Screen OD	
inch	mm	lb/ft	kg/m	Size	Size	holes/ft	holes/m	inch	mm
2.375	60.33	4.6	6.58	0.375	9.53	48	157	3.08	78.23
2.875	73.03	6.4	9.52	0.375	9.53	48	157	3.58	90.93
3.5	88.90	9.2	13.69	0.375	9.53	60	197	4.2	106.68
4	101.60	9.5	14.14	0.375	9.53	60	197	4.7	119.38
4.5	114.30	11.6	17.26	0.375	9.53	72	236	5.2	132.08
5	127.00	15	22.23	0.375	9.53	72	236	5.7	144.78
5.5	139.70	17	25.32	0.375	9.53	84	276	6.2	157.48
6.625	169.3	24	35.72	0.375	9.53	84	276	7.33	186.18

Metallurgy: Mesh available in 316L or nickel alloy 20; base pipe available in a multitude of materials upon request. Nominal weave micron ratings: 75, 100, 125, 135, 150, 175, 200, 225, 250, 275.

REFERENCES

Wire-wrapped and premium well screens brochure

CoilFlo™ DB

Superior Completion Services' **CoilFlo™ Diffusion-Bonded (DB) Screens** are innovative sand control products that enable economical through-tubing completions to be performed with coiled tubing (CT) or wireline. DB screens offer 30 to 40% greater surface area than deep-media screens.

CoilFlo™ DB Well Screens incorporate DB laminated filter media comprised of either three or four layers of wire mesh selected to provide accurate particle size control while maximizing flow rate and strength. This filter media is protected by a perforated outer shroud.

APPLICATIONS

- Sand control
- Through-tubing completions on CT or wireline
- Vertical, deviated or horizontal wells

Features and Benefits

- Extensive selection of media available for a wide range of formation sand sizes to optimize sand control effectiveness
- Fixed pore geometry enhances sand control under high operating pressures
- Enhanced screen properties include rigidity, strength and resistance to distortion, abrasion and vibration
- Mesh porosity: 55% minimum
- Non-standard screen lengths are available upon request
- Multiple-layered design incorporates filtration and drainage layers into a single rigid cartridge



CoilFlo™ DB

TECHNICAL DATA

CoilFlo™ DB													
Base Pipe OD		Base Pipe ID		Screen OD		Screen Weight		Coupling OD		Standard Length			
inch	mm	inch	mm	inch	mm	lb/ft	kg/m	inch	mm	Total Length		Screen Length	
										ft	m	ft	m
1.315	33.40	1.049	26.6	1.7	43.2	2.9	4.3	1.66	42.2	11.25	3.43	8	2.44
1.66	42.16	1.38	35.1	2.05	52.1	3.8	5.6	2.054	52.2	11.25	3.43	8	2.44
1.9	48.26	1.61	40.9	2.3	58.4	4.4	6.5	2.2	55.9	11.25	3.43	8	2.44
2.094	53.19	1.751	44.5	2.49	63.3	5	7.4	2.5	63.5	11.25	3.43	8	2.44

Metallurgy: Mesh available in 316L or nickel alloy 20; base pipe available in a multitude of materials upon request. Nominal weave micron ratings: 75, 100, 125, 135, 150, 175, 200, 225, 250, 275.

REFERENCES

Wire-wrapped and premium well screens brochure

UniFlo™ HELICAL Inflow Control Technology

Superior Completions Services' **Uniflo™ Production/Injection Control Well Screens** balance and distribute the flow of fluid along horizontal wellbores. This screen system includes an integral helical design inflow control device (ICD). In producing wells, drawdown pressure is distributed along the wellbore length to achieve balanced production. In injection wells, the injection pressure is distributed along the wellbore to achieve balanced injection.

Fluid flow distribution is achieved by creating flow resistance at selected locations along the wellbore. Since energy is conserved in closed systems, reducing the flowing kinetic energy at one location can increase the potential energy at another location. The **UniFlo™ System** can utilize orifice and nozzle designs, labyrinth designs, long channel designs and combinations of the various methods to create this resistance in both fixed and adjustable configurations.

In applications requiring sand control, the screens are configured to retain either the formation material or the gravel pack sand. In more competent rock applications, the screens are configured as debris filters.

Superior Completion Services can provide custom designs according to the precise needs of the application. This is accomplished with an in-house design tool that considers the fluid properties, flowing properties, required size, required pressure setting and flow velocities. Since these ICD's are designed precisely, accuracy of the application is not jeopardized by having to best-fit a limited number of ICD designs to the well.

APPLICATIONS

- Sand control
- Horizontal wellbores; producing and injection wells
- High-rate gas wells to reduce heading due to water encroachment, passive choking of the water
- Oil viscosities $\leq 2\text{cP}$



UniFlo™ HELICAL Inflow Control Technology

Features and Benefits

- Can be manufactured with direct-wrap jackets or with premium mesh filtration cartridges offering customization
- Uniform production/injection by reducing inflow at the heel and increasing inflow at the toe by resistance to flow of fluids passing through the long channels of the Helix
- Prevention of early water and/or gas breakthrough is accomplished by equalizing the influx of fluids along the well-bores lateral length
- Increase in ultimate total recovery
- Uniform injectivity via resistance to injection by the Helical design delivering equalized out flow of fluids from tubular to well-bore

TECHNICAL DATA

UniFlo™ HELICAL Screen			
Base Pipe OD		Maximum OD	
inch	mm	lb/ft	kg/m
2.88	73.15	3.98	101.1
3.5	88.90	4.52	114.8
4	101.60	5.08	129
4.5	114.30	5.52	140.2
5.5	139.70	6.54	166.1
6.63	168.40	7.69	195.3

REFERENCES

Wire-wrapped and premium well screens brochure

UniFlo™ ROI for Consolidated Formations

Superior Completion Services' **UniFlo™ Production/Injection Control Device for Consolidated Formations**, balance and distribute the flow of fluid along horizontal consolidated formations. This product includes an integral Radial Orifice ICD, ROI and is quipped with a wire wrap jacket debris barrier. In a producing well, drawdown pressure is distributed along the wellbore length to achieve balanced production. In an injection well, the injection pressure is distributed along the wellbore to achieve balanced injection.

Fluid flow distribution is achieved by creating flow resistance at selected locations along the wellbore. Since energy is conserved in closed systems, reducing the flowing kinetic energy at one location can increase the potential energy at another location. **UniFlo™ ROI for Consolidated Formations** utilizes tungsten carbide nozzles with the capability of having four nozzles spaced every 90° around the circumference of the base pipe outside diameter. These nozzles provide options and the flexibility of adjusting the orifice sizes prior to actual run in hole operations.

In applications requiring sand control, filter media is configured to retain either the formation material or the gravel pack sand. In more competent rock applications, such as carbonates. The filter media is configured as a debris barrier.

Superior Completion Services can provide custom designs according to the precise needs of the application. This is accomplished with an industry available design tool that considers the fluid properties, flowing properties, required size, required pressure setting and flow velocities. Since these ICDs are designed precisely, accuracy of the application is not jeopardized by having to best-fit a limited number of ICD designs to the well.

APPLICATIONS

- Consolidated formations
- Horizontal wellbores; producing and injection wells



Features and Benefits

- Threaded nozzles and a removable housing deliver just-in-time field adjust-ability
- Equipped with a debris barrier, typically a 100 gauge wire wrap jacket, solids are kept out of the UniFlo ROI Housing
- Pseudo-Steady State software enables fit for purpose design

UniFlo™ ROI for Consolidated Formations Inflow Control Technology

TECHNICAL DATA

UniFlo™ ROI for Consolidated Formations				
Base Pipe OD		Screen OD		
inch	mm	lb/ft	kg/m	
2.375	60.33	3.47	88.14	
2.875	73.03	3.97	100.84	
3.50	88.90	4.61	117.09	
4.00	101.60	5.11	129.79	
4.50	114.30	5.61	142.49	
5.00	127.00	6.11	155.19	
5.50	139.70	6.63	168.40	
6.625	168.28	7.72	196.08	

REFERENCES

Wire-wrapped and premium well screens brochure

Internal Screen Communication System (SCS)

Superior Energy Services - Completion Services' patented **Screen Communication System (SCS)** utilizes the annular space between the ID of the screen base pipe and the OD of the solid internal mandrel as a flow conduit for fluid returns during gravel pack operations and, later, production flow. The system interconnects this annular space among multiple screens with a special coupling to form a continuous flow path from the top of the screened interval to the bottom. This promotes efficient placement of the gravel pack media and can be optimized to facilitate uniform production or injection when flowing through a production sliding sleeve located beneath the screen.

APPLICATIONS

- Sand control
- Standalone screen with SelectFlo™ screen wrapped sleeves

Features and Benefits

- Allows circulation along the entire screen interval during gravel packing operations
- Allows gravel placement in the circulating mode using isolation screen systems
- Provides flow communication throughout entire screened interval during production

TECHNICAL DATA

Screen Communication System									
Base Pipe OD		Screen OD		Maximum System ID		Screen Communication ID		Minimum Area Flow	
inch	mm	inch	mm	inch	mm	inch	mm	inch ²	mm ²
2 3/8	60.33	3.25	82.55	2	50.80	2	50.80	1	645.2
		3.25	82.55	1.875	47.63	2	50.80	1	645.2
4	101.60	4.25	107.95	3	76.20	3	76.20	1.2	774.2
		4.25	107.95	2.813	71.45	3	76.20	1.2	774.2
4 1/2	114.30	5.11	129.79	3.5	88.90	3.5	88.90	1.8	1161.30
		5.11	129.79	3.313	84.15	3.5	88.90	1.8	1161.30
5	127.00	6.25	158.75	3.83	97.28	4.03	102.36	5	3225.80

REFERENCES

Complete™ MST System data sheet



SureFlo™ SCS

Superior’s **SureFlo™ Screen Communications System** offers an innovative means of fluid leak-off at each blank section of screen across coupled connections, production sleeves, or circulating sleeves during pumping of gravel or frac-pack operations to eliminate void areas in the annular pack. The **SureFlo™** Screen Communications System consists of an external **SureFlo™** jacket and undercut end rings that are constructed of a single or multi-layered wire mesh filter bonded together with a perforated shroud creating a robust jacket. This jacket enables fluid passage from one screen to the next, external to the base pipe, in a Multizone Single-Trip (MST) application or in a standalone SelectFlo™ application when each screen does not have a sliding sleeve. This fluid path aids in creating a void free annular pack during a circulating pack or while taking returns at the end of a frac treatment. The jacket also serves as a filter mechanism during injection or production for those perforations located across from the blank sections of each screen assembly.

SureFlo™ Communication Jacket is temporarily secured in place on the pin end of each screen unit for shipping and handling purposes. Once each screen unit is properly torqued during installation, the jacket is then released and slid down over the connection and attaches to each screen unit at the undercut end ring locations. This results in a sand face completion with continuous filtering and fluid leak off capabilities along the entire perforated interval while also creating a continuous communication flow path underneath the screen jacket from top to bottom.



Features and Benefits

- System design maintains full screen base pipe ID
- Single or multi-layered filter across the coupling between screens provides a means for fluid communication which enables leak-off and dehydration ensuring a complete pack of the annulus
- Single or multi-layered filter jacket across the coupling between the screens allows enhanced production or injection flow at the perforations located across couplings eliminating convergent flow in the reservoir
- Extends the filtering and leak-off capability from one screen jacket to the next, creating one continuous screen filter from top to bottom maximizing perforation contact
- Innovative SureFlo™ Screen Communication System can incorporate production MSVs, (Multi-service Shifting Valve), base pipe and/or MS Circulating sleeves to provide maximum versatility and cost savings within the completion

SureFlo™ SCS

TECHNICAL DATA

SureFlo™ External SCS											
Base Pipe OD		ProWeld™ Precision TOP OD		DynaFlo™ DB OD		Vam TOP Box OD		SureFlo™ SCS with ProWeld™ Precision TOP OD		SureFlo™ SCS with DynaFlo™ DB OD	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
3 ½	88.9	4/07	103.4	4.2	106.7	3.907	99.2	4.4	111.8	4.47	119.4
4	101.6	4.57	116.1	4.68	118.9	4.526	115	4.9	124.5	4.95	125.7
4 ½	114.3	5.07	128.8	5.19	131.8	4.937	125.4	5.4	137.2	5.46	138.7
5 ½	139.7	6.07	154.2	6.2	157.5	6.071	154.2	6.78	172.2	6.47	164.3

REFERENCES

SelectFlo™ Screen Wrapped Sliding Sleeve

SelectFlo™ Screen-Wrapped Sliding Sleeve

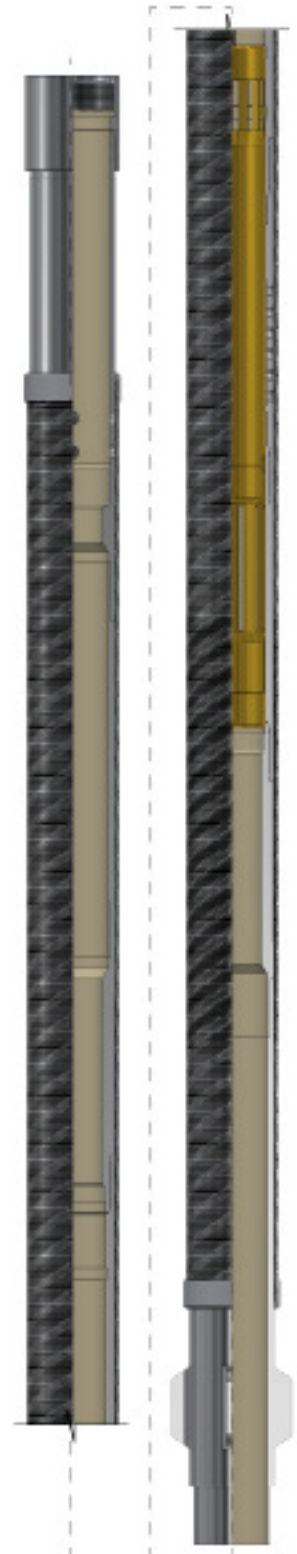
Superior Energy Services - Completion Services' screen-wrapped sleeves can be manufactured with any screen design in the portfolio including the ProWeld TOP (Tight On Pipe). The finished good may be equipped with the Multiservice Valve (MSV), Pressure Actuated Circulation Valve (PACV), or any other sliding sleeve or valve with dimensions that adapt to the respective screen design. The design maximizes the systems inside diameter while enabling the functionality for selective production control. When run in conjunction with a Screen Communication System (SCS), multiple joints can be coupled together with at least one valve/sliding sleeve to ensure proper pack placement and alternative flow path for production. The system can be used in slim-hole applications and is run exclusively with the **Complete™ Multizone Single-Trip (MST)** System.

APPLICATIONS

- Cased hole completions
- Slimhole completions
- Multizone single-trip completions
- Openhole completions
- Where zonal control is required
- Ultra-deep completions

Features and Benefits

- Integral sliding sleeve/valve enables selective production/injection control
- Open/Closed feature delivers positive zonal isolation
- Unique shifting profiles accommodates the use of multiple sleeves in a single wellbore
- When run with an SCS allows multiple screen joints run with a single sliding sleeve/valve



SelectFlo™ Screen-Wrapped Sliding Sleeve

TECHNICAL DATA

Available sizes 2 1/16 to 7 in. (52.4 to 177.8 mm)
 Differential pressure rating up to 15,000 psi (103.4 MPa)
 Temperature rating up to 350°F (177°C)

Screen Wrapped MSV							
Base Pipe OD		MSV Profile ID		Minimum Screen OD		Screen Joint Length	
inch	mm	inch	mm	inch	mm	ft	m
2 3/8	60.33	1.875	47.63	3.12	79.25	10-40	3.0-12.2
2 7/8	73.03	2.313	58.75	3.62	91.95	10-40	3.0-12.2
3 1/2	88.90	2.813	71.45	4.26	108.20	10-40	3.0-12.2
4	101.60	2.813	71.45	4.57	116.10	10-40	3.0-12.2
4 1/2	114.30	3.313	84.15	5.11	129.79	10-40	3.0-12.2
6	152.40	4.500	114.30	6.73	170.94	10-40	3.0-12.2

Screen Wrapped MSV for Multizone System							
Base Pipe OD		MSV Profile ID		Minimum Screen OD		Screen Joint Length	
inch	mm	inch	mm	inch	mm	ft	m
4	101.60	2.84	72.14	4.57	116.09	10-40	3.0-12.2
5	127.00	3.83	97.28	6.25	158.75	10-40	3.0-12.2
6 5/8	168.28	5.26	133.60	7.53	191.26	10-40	3.0-12.2

REFERENCES

- ComPlete™ MST System data sheet
- Multi-profile Multi-Service Valve data sheet
- Multi-Service Valve data sheet
- Screen Communication System data sheet
- Wire-wrapped and premium well screens brochure

AI Packer: Swellable Isolation System

Superior Energy-Completion Services **AI-Packer** provides a simple, effective, high integrity solution for cased and open hole zonal isolation.

Superior’s AI, Autonomously Instinctive, swellable packer enables isolation in open hole and cased hole environments. The swellable nature of the rubber allows it to conform to micro variations in the bore hole, which, in combination with long wellbore contact length, provides a high integrity seal in openhole without exerting excessive force on the wellbore.

The **AI-Packer** has no moving parts, and requires no setting tools making reliability of this packer exceptionally high.

The **AI-Packer** is autonomously energized by the fluid present in the well, whether that be oil or water-based. Naturally instinctive processes of absorption and diffusion assisted by the complex engineering of the rubber matrix draw fluid inside the packer which then swells to contact the wellbore and provide a seal.

The **AI-Packer** is bonded to the base pipe for the full length of the swellable rubber element. This reduces possible leak paths providing a high-pressure, high-integrity seal. It provides effective isolation with either ball-activated sleeves or plug and perf completion designs.

Superior’s **AI-Packer** provides annular isolation when run with ICD completions minimizing annular flow while offering segmentation of exposed shales.

APPLICATIONS

Superior’s **AI-Packers** are a simple more reliable means of isolations than alternatives such as inflatable packers and cementing in extended horizontal wells. Their robust design and simple operation mean they are a flexible solution in many situations where a pressure seal is required: Specific applications include:

- Isolation for hydraulic fracturing (particularly in horizontal wellbores)
- Wellbore segmentation
- Flow diversion
- Isolation of sustained casing pressure
- Cement integrity (micro-annuli and mud channelling)
- Straddle systems
- Used with Inflow Control Devices as barriers to minimize annular flow and isolate shale sections
- Between screen zonal isolations for gravel-packing and sand screens
- Through-tubing isolation of perforations for refracturing



AI Packer: Swellable Isolation System

Features and Benefits

- Single trip, no running tools, self setting
- No moving parts, fully-bonded element
- Self-healing, conforms to wellbore
- Effective isolation providing enhanced stimulation and production performance
- Reduced rig time and personnel - reduced cost
- Reduced failure modes - robust design - increased reliability
- Long-term, high integrity seal

SPECIFICATIONS

- Single element design providing a high-integrity seal
- High-performing oil and water swellable elastomers
- Anti-extrusion end rings that also protect the rubber element while running in hole
- Temperature range 32°F-392°F (0°C-200°C)
- Differential pressure rating up to 10,000 psi (dependent on packer length)
- Design contact time 24 to 72 hours
- Design setting time 7 to 14 days
- Standard element lengths of 3, 5, 10, and 20 ft.
- Base pipe sourced from mills around the globe
- Chemical resistance to majority of common downhole fluids

AI Packer: Swellable Isolation System

TECHNICAL DATA

AI Packer: Swellable Isolation System									
Hole Size		Mandrel Size		Element OD		Full Pressure Rating Up To		Reduced Pressure Rating Up To	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
3.476	88	2.375	60	3.200	81	3.650	93	3.900	99
4.000	102	2.875	73	3.750	95	4.200	107	4.450	113
4.892	124	3.500	89	4.600	117	5.100	130	5.400	137
OPEN HOLE									
Hole Size		Mandrel Size		Element OD		Full Pressure Rating Up To		Reduced Pressure Rating Up To	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
4.960	126	4	102	4.650	118	5.000	127	5.200	132
6.00	152	3.5	89	5.625	143	6.500	165	7.000	178
6.00	152	4.5	114	5.625	143	6.200	157	6.550	166
6.125	156	4	102	5.750	146	6.450	164	7.000	178
6.125	156	4.5	114	5.750	146	6.375	162	6.750	171
6.250	159	4.5	114	5.875	149	6.600	168	7.000	178
8.500	216	5.5	140	8.150	207	9.250	235	10.000	254
8.500	216	6.625	168	8.150	207	8.900	226	9.350	237
8.500	216	7	176	8.150	207	8.700	221	9.000	229
12.250	311	9.625	244	11.750	298	12.750	324	13.250	337
17.500	445	13.375	340	16.750	425	18.250	464	18.500	470

AI Slip-On: Swellable Isolation System

A short, slide-on packer designed for flexibility of use, while still providing a high integrity seal.

Superior Energy Services - Completion Services' **AI Slip-On** swellable system offers a slip-on feature delivering a flexible and practical solution for field installation to client-supplied equipment. They operate in the same manner as the AI Packer with the swellable nature of the rubber allowing it to conform to micro variations in the bore hole. This, in isolation or combined with multiple **AI Slip-Ons**, provides a high-integrity seal in open hole without exerting excessive force on the wellbore.

The **AI Slip-On** is energized by the fluid present in the well, whether that be oil or water-based. Natural processes of absorption and diffusion assisted by the complex engineering of the rubber matrix draw the fluid inside the **Slip-On**, which then swells to contact the wellbore and provide a seal. A series of **AI Slip-Ons** can be installed to increase the pressure rating of the seal. They provide effective isolation in a wide range of scenarios and can be manufactured to suit any base pipe or screen size.



APPLICATIONS

AI Slip-On Swellable System provides a simple, more reliable means of isolation than alternatives such as inflatable packers and can be used in conjunction with cement for well assurance. Their robust design and simple operation mean they are a flexible solution in many situations where a pressure seal or fluid and debris barrier is required. Specific applications include:

- Used with ICD's to eliminate annular flow and offer zonal isolation as required
- Between sleeve isolation for hydraulic fracturing
- Debris barrier
- Flow diversion
- Isolation of Sustained Casing Pressure
- Cement integrity (micro-annuli and mud channelling)
- Between screen zonal isolation for gravel packing and sand screens

AI Slip-On: Swellable Isolation System

Features and Benefits

- Slide-on design
- Single element (with integral end rings)
- Slim profile
- Operational flexibility due to in field installation
- Reduced cost option over packers
- Performance enhancement - the slim profile can be cemented around

SPECIFICATIONS

- Single element design providing a high-integrity seal
- Available in oil and water swellable elastomers
- Anti-extrusion end rings that also protect the rubber element while running in hole
- Temperature range 32°F-392°F (0°C-200°C)
- Differential pressure rating up to 3,000 psi
- Design contact time 24 to 72 hours
- Design setting time 7 to 14 days
- Standard element lengths of 1 ft. and 3 ft.
- Manufactured 100% in the USA
- Chemical resistance to majority of common downhole fluids

TECHNICAL DATA

AI Slip-On: Swellable Isolation System									
Hole Size		Mandrel Size		Element OD		Full Pressure Rating Up To		Reduced Pressure Rating Up To	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
4.960	126	4	102	4.65	118	5.000	127	5.200	132
6.000	152	3.5	89	5.625	143	6.500	165	7.000	178
6.000	152	4.5	114	5.625	143	6.200	157	6.550	166
6.125	156	4	102	5.75	146	6.450	164	7.000	178
6.125	156	4.5	114	5.75	146	6.375	162	6.750	171
6.250	157	4.5	114	5.875	149	6.600	168	7.000	178
8.500	216	5.5	140	8.15	207	9.250	235	10.00	254
8.500	216	6.625	168	8.15	207	8.900	226	9.350	237
8.500	216	7	178	8.15	207	8.700	221	9.000	229
12.250	311	9.625	244	11.75	298	12.750	324	13.250	337
17.500	445	13.375	340	16.75	425	18.250	464	18.500	470