

OIL & GAS PRODUCERS COMPLETION CONFIGURATION
4-1/2 11.6# CASING WITH 2-3/8 NUE TUBING
STREN SERIES XPR2020 CROSSBAR™ COMPLETION



“A Leader in Producing Productivity”



Expanded Houston
Manufacturing Facilities



www.stren.net

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Oil & Gas Producers Completion Configuration



Oil & Gas Producers Completion Configuration
for 4-1/2 11.6# CSG. with 2-3/8 NUE TBG.
Stren Series XPR2020 CrossBar™ Completion.

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Superior productivity with lower pressure drops and longer service life!

Stren SC2000 XPR 2516C Completion Unit

SC2000™ Series XPR™ Completion Unit



The SC2000 Series XPR completion unit for oil and gas wells provides a clean, sand-free wellbore and the lowest reservoir backpressure for increased production flow and rod-pump longevity. Many operators are not achieving full-production potential because of backpressure on the reservoir caused by sand inflow and liquid loading. The XPR completion unit provides a single answer to both problems.

Applications

- Rod lifted gas and oil production and well workovers, solids inflow control, and gas well liquid-loading control
- Cased-hole, perforated-interval-interface, or new drill completions

Features, Advantages and Benefits

- The XPR unit incorporates a high-performance, matrix-metal™ reservoir interface. This feature protects against sand inflow and liquid loading to enhance production and extend pump life. It also prevents premature rod-pump failure caused by solids production, extending equipment life while preventing nonproductive time (NPT).
- Unique, rugged, corrosion-resistant, matrix-metal, stainless steel-screen design with standard 100-micron control point results in lower pressure drops for longer service life and higher production flow.
- Heavy-duty CrossBar™ style shroud enhances flow vectoring attenuation of fluids, and flow distribution in perforated cased hole completions.
- The XPR unit provides cost-effective, easy installation and protects the rod pump from excessive wear—minimizing capital costs to replace failed rod pumps, as well as avoiding NPT.
- Integrated-pumping-sump increases rod-pump-productivity.
- System design can accommodate oil or gas wells of any size.

Options

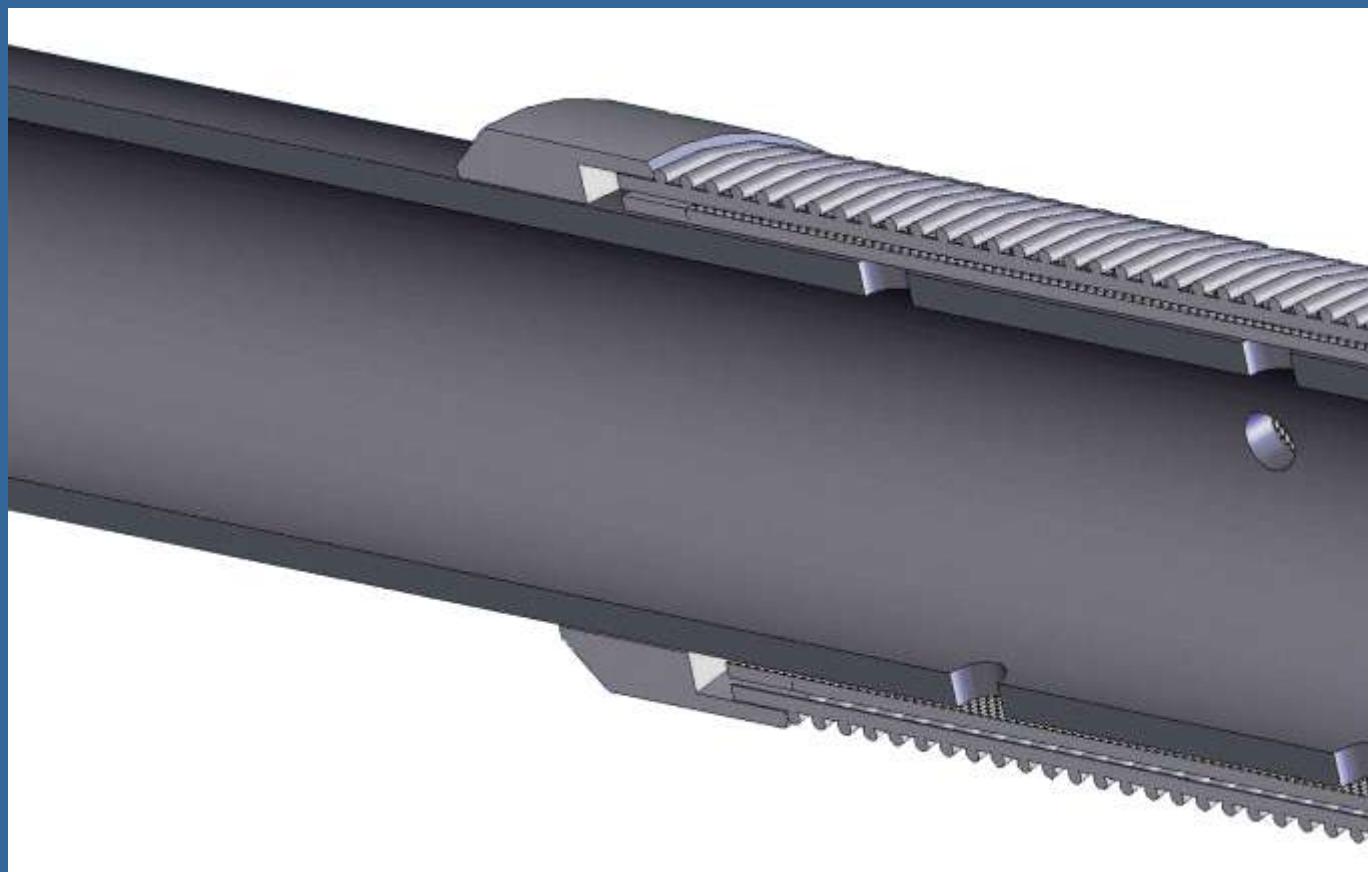
- On/off tool/torque safety joint

The Series XPR screen design is unique with rugged, corrosion-resistant, matrix metal stainless steel construction. The unit's standard 100-micron control point provides for low pressure drop, higher production flow, and longer service life.



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Stren Series XPR 2020 CrossBar™



XPR Production



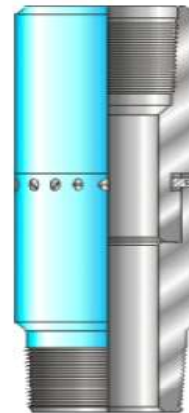
Stren ST569 Shear Safety Joint (SSJ)



ST569 SHEAR SAFETY JOINT

The ST569 shear safety joint provides for an emergency release of the tubing string. A straight pull separates the tool at a predetermined shear value.

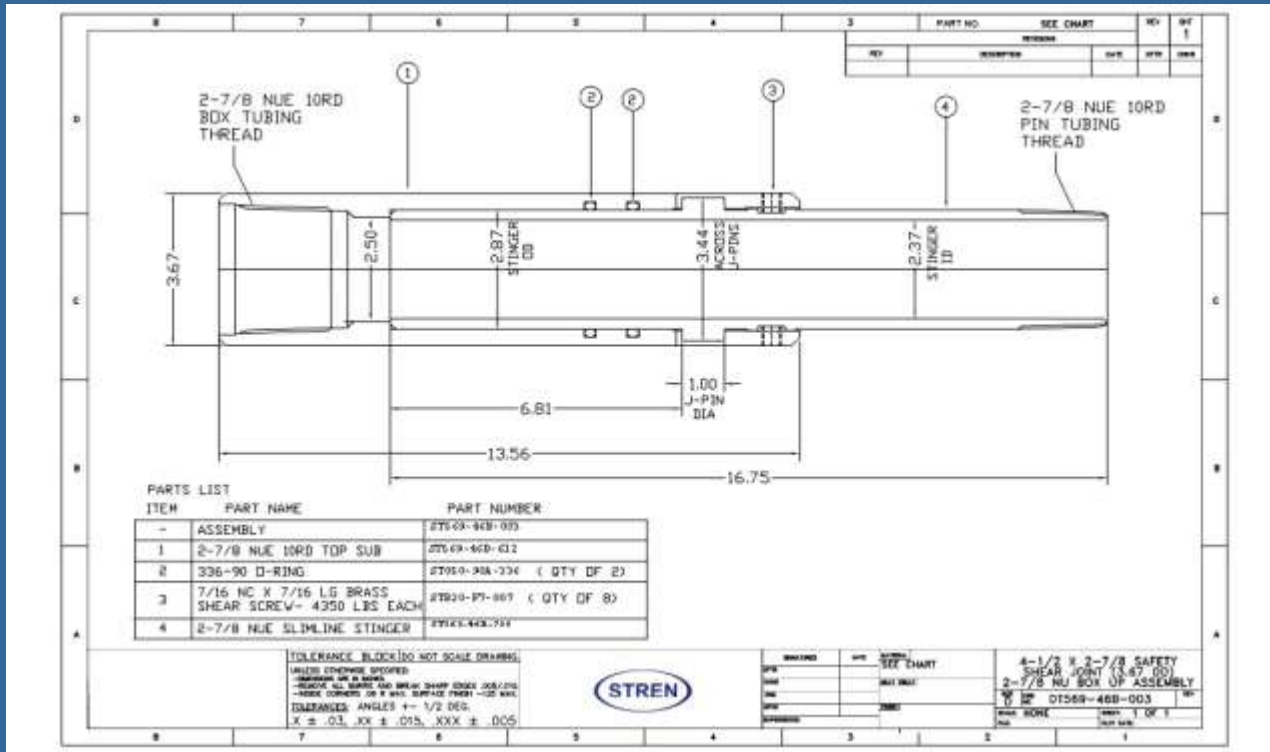
TUBING SIZE	MAX O.D.	MIN. I.D.	THREAD CONNECTION	PRODUCT NUMBER
1.660	2.220"	1.375"	1.660 EUE 10RD	ST569-16A-000
1.900	2.500"	1.500"	1.900 EUE 10RD	ST569-19A-000
2-3/8	3.062"	2.000"	2-3/8 EUE 8RD	ST569-20A-000
2-7/8	3.688"	2.500"	2-7/8 EUE 8RD	ST569-25A-000
3-1/2	4.500"	3.000"	3-1/2 EUE 8RD	ST569-35A-000



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REV 08/10

Stren ST569 Shear Safety Joint (SSJ)



Stren Shear Safety Joint (SSJ)

Shipped with full complement of 8 brass shear screws installed at 4300 lbs each, with Warning tag to remove screws to desired shear setting for individual well conditions.



ST510 Standardized Stinger

ST510 Standardized Stinger implemented for both T2 On/Off Tool and Shear Safety Joint (SSJ). This provides for T2 Overshot retrieval of Stinger on Liner Hanger Packer, or Stinger of SSJ.



ST510 STINGER ON/OFF OVERSHOT

SPECIFICATION GUIDE

SIZE (IN.)	A	B	C	D	E	F	G	H
2-3/8	2.600	6.375	1.0	3.25	2.69	2.62	16.12	2.437
2-7/8	3.250	6.938	1.0	3.875	3.312	3.25	17.62	3.062



Stren ST-AS1-X Liner Hanger Packer

ST-AS1-X Liner hanger Packer can be configured with optional shear ring release with 12 brass shear screws installed at 4300 lbs each; with Warning tag to remove screws to desired shear settings for individual well conditions. Connections implemented: 2-3/8" NUE 10rd box up, pin down.



ST-AS1-X PRODUCTION PACKER

The ST-AS1-X is a single string, double grip retrievable production packer that holds pressure from above and below. It effectively meets several requirements for zone isolation, completion screens placement, pumping, and production. The ST-AS1-X packer is capable of being set in tension or compression. Once set, the tubing string can be left in tension, compression, or neutral. Incorporated into the design is an internal bypass system that equalizes pressure before the upper slips are pulled from the casing wall. The ST-AS1-X Packer sets and releases to the right with one quarter turn at the packer. The ST-AS1-X can be run with an on/off tool, which adds to the versatility of this packer.

- ✓ TENSION or COMPRESSION SET
- ✓ INTERNAL BYPASS TO REDUCE SWABBING
- ✓ ¼ TURN TO SET AND RELEASE
- ✓ AVAILABLE IN SHEAR RELEASE
- ✓ TUBING CAN BE LEFT IN TENSION, COMPRESSION, or NEUTRAL

SPECIFICATION GUIDE

Casing Size	Casing Weight	Thread Connection	Max. O.D.	Min. I. D.	Product Number
2-7/8	6.4-6.5	1.050 EUE 10RD	2.250	.625	STAS1X-25A-000
3-1/2	9.2-10.2	1.900 NU 10RD	2.781	1.250	STAS1X-35A-000
4.0	9.5-11 PPF	1.900 EUE 10RD	3.250	1.500	STAS1X-40A-000
4-1/2	15.1-16.6 PPF	1.900 EUE 10RD	3.594	1.500	STAS1X-45C-000
4-1/2	9.5-13.5 PPF	2-3/8 EUE 8RD	3.750	1.938	STAS1X-45A-000
4-1/2	13.5-15.1 PPF	2-3/8 EUE 8RD	3.656	1.938	STAS1X-45B-000
5.0	11.5-18 PPF	2-3/8 EUE 8RD	4.125	1.938	STAS1X-50A-000
5.0	18-20.8 PPF	2-3/8 EUE 8RD	4.000	1.938	STAS1X-50B-000
5-1/2	13-14 PPF	2-3/8 EUE 8RD	4.812	2.000	STAS1X-55C-000
5-1/2	14-20 PPF	2-3/8 EUE 8RD	4.625	2.000	STAS1X-55A-000
5-1/2	20-23 PPF	2-3/8 EUE 8RD	4.500	2.000	STAS1X-55B-000
5-1/2	13-14 PPF	2-7/8 EUE 8RD	4.812	2.375	STAS1X-56C-000
5-1/2	13-15.5 PPF	2-7/8 EUE 8RD	4.781	2.375	STAS1X-56D-000
5-1/2	15.5 20 PPF	2-7/8 EUE 8RD	4.625	2.375	STAS1X-56A-000
5-1/2	20-23 PPF	2-7/8 EUE 8RD	4.500	2.375	STAS1X-56B-000
6.0	14-20 PPF	2-7/8 EUE 8RD	5.188	2.375	STAS1X-60A-000
6-5/8	17-20 PPF	2-7/8 EUE 8RD	5.750	2.500	STAS1X-65A-000
7.0	17-26 PPF	2-7/8 EUE 8RD	6.000	2.500	STAS1X-70A-000
7.0	23-29 PPF	2-7/8 EUE 8RD	5.969	2.500	STAS1X-70B-000
7.0	26-35 PPF	2-7/8 EUE 8RD	5.875	2.500	STAS1X-70C-000
7-5/8	24-29.7 PPF	2-7/8 EUE 8RD	6.625	2.500	STAS1X-75A-000
7-5/8	33-39 PPF	2-7/8 EUE 8RD	6.453	2.500	STAS1X-75B-000
8-5/8	24-40 PPF	2-7/8 EUE 8RD	7.500	2.500	STAS1X-85A-000
9-5/8	32.3-43.5 PPF	4-1/2 EUE 8RD	8.500	4.000	STAS1X-95B-000
9-5/8	43.5-53.5 PPF	4-1/2 EUE 8RD	8.250	4.000	STAS1X-95A-000
10-3/4	32.75-45.5 PPF	4-1/2 EUE 8RD	9.687	4.000	STAS1X-10A-000



Stren ST-AS1-X Liner Hanger Packer with Shear Ring Option



Stren ST-AS1-X Liner Hanger Packer with Shear Ring Option



ST510 Standardized Stinger

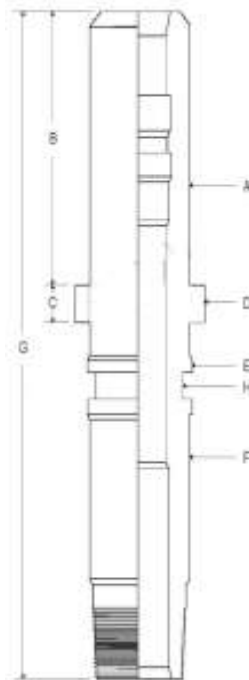
T2 Running Tool configuration for setting ease and reliable re-latching for retrievable and/or pumping into completion string.



ST510 STINGER ON/OFF OVERSHOT

SPECIFICATION GUIDE

SIZE (IN.)	A	B	C	D	E	F	G	H
2-3/8	2.600	6.375	1.0	3.25	2.89	2.62	16.12	2.437
2-7/8	3.250	6.938	1.0	3.675	3.312	3.25	17.62	3.062



Stren ST510



ST12 T-2 ON/OFF OVERSHOT

The ST12 T-2 On/Off Overshot was designed to disconnect and connect the tubing string from a double grip production packer that does not require tension or compression to maintain a pack-off. The ST12 T-2 on/off tool applications consists of treating, fracing, testing, and production applications. The profile stingers run with the overshot are available in a variety of profile sizes and materials.

- ✓ Proven Bonded Seal System
- ✓ Built for Strength and Durability
- ✓ Variety of Profile Nipples
- ✓ Available in Special Metallurgy
- ✓ Available Shear Pinned up or Down Position
- ✓ Available in Spring Loaded Design



Casing Size	Max. O.D.	Thread Connection	Product Number
3-1/2	2.750	1.900 NUE	ST12-35A-000
4	3.250	1.900 EUE	ST12-40A-000
4-1/2 - 5	3.750	2-3/8 EUE	ST12-45A-000
5-1/2 - 6-5/8	4.500	2-3/8 EUE	ST12-55A-000
5-1/2 - 6-5/8	4.500	2-7/8 EUE	ST12-56A-000
7 - 7-5/8	5.750	2-7/8 EUE	ST12-70A-000
7 - 7-5/8	5.750	3-1/2 EUE	ST12-73A-000
8-5/8	6.500	2-7/8 EUE	ST12-85A-000
8-5/8	6.500	4-1/2 EUE	ST12-86A-000
9-5/8	7.500	2-7/8 EUE	ST12-95A-000
9-5/8	7.500	4-1/2 EUE	ST12-96A-000
10-3/4	8.500	2-7/8 EUE	ST12-10A-000
10-3/4	8.500	4-1/2 EUE	ST12-11A-000

Customer's Special Request Item: Push-On Overshot for Pumping

Coil tubing
deployed
overshot
engagement of
ST510 Stinger,
Part #
ST12POS T2.



Oil & Gas Producers Completion Configuration
for 4-1/2 11.6# CSG. with 2-3/8 NUE TBG.
Stren Series XPR2020 CrossBar™ Completion.

Oil & Gas Producers Overshot Push-On Cross Section



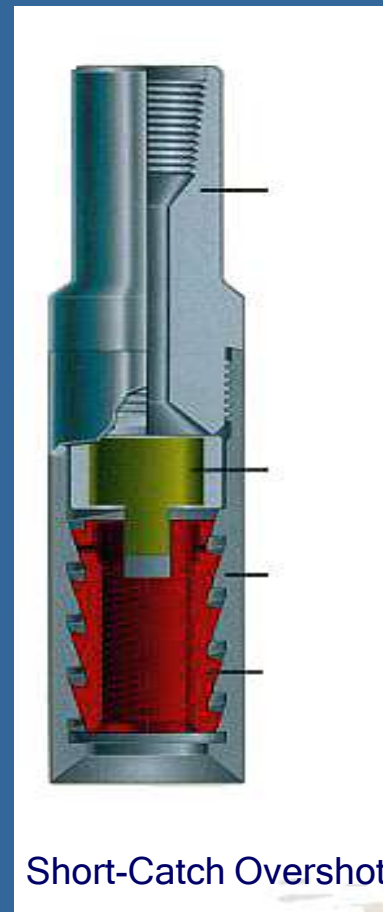
Overshot Push-On 061230-45-01.SLDASM

Oil & Gas Producers Overshot Push-On Engaged



Overshot Push-On 061230-45-001.SLDASM

Short-Catch Overshot Service Tool Option



Top Sub

Basket Grapple Control

Bowl

Basket Grapple

Short-Catch Overshot

Oil & Gas Producers 4-1/2 x 2-3/8 Configuration, No Shear Safety Joint (SSJ)

Oil & Gas
Producers
Completion
Configuration
for 4-1/2
11.6# CSG.
with 2-3/8
NUE tbg.

Stren Series
XPR2020
CrossBar™
Completion –
without
Safety Shear
Joint (SSJ).



Stren ST12 On/Off Tool Overshot

ST12 Standardized Stinger implemented for both T2 On/Off tool and Shear Safety Joint (SSJ). This provides for T2 Overshot retrieval of stringer on packer or stinger of SSJ.



ST12 T-2 ON/OFF OVERSHOT

The ST12 T-2 On/Off Overshot was designed to disconnect and connect the tubing string from a double grip production packer that does not require tension or compression to maintain a pack-off. The ST12 T-2 on/off tool applications consists of treating, fracing, testing, and production applications. The profile stingers run with the overshot are available in a variety of profile sizes and materials.

- ✓ Proven Bonded Seal System
- ✓ Built for Strength and Durability
- ✓ Variety of Profile Nipples
- ✓ Available in Special Metallurgy
- ✓ Available Shear Pinned up or Down Position
- ✓ Available in Spring Loaded Design



Casing Size	Max. O.D.	Thread Connection	Product Number
3-1/2	2.750	1.900 NUE	ST12-35A-000
4	3.250	1.900 EUE	ST12-40A-000
4-1/2 - 5	3.750	2-3/8 EUE	ST12-45A-000
5-1/2 - 6-5/8	4.500	2-3/8 EUE	ST12-55A-000
5-1/2 - 6-5/8	4.500	2-7/8 EUE	ST12-56A-000
7 - 7-5/8	5.750	2-7/8 EUE	ST12-70A-000
7 - 7-5/8	5.750	3-1/2 EUE	ST12-73A-000
8-5/8	6.500	2-7/8 EUE	ST12-85A-000
8-5/8	6.500	4-1/2 EUE	ST12-86A-000
9-5/8	7.500	2-7/8 EUE	ST12-95A-000
9-5/8	7.500	4-1/2 EUE	ST12-96A-000
10-3/4	8.500	2-7/8 EUE	ST12-10A-000
10-3/4	8.500	4-1/2 EUE	ST12-11A-000

Optional Transport Package



Stren's Customer Preferred Shipment Package

We look forward to the opportunity to be of service in increasing production and productivity through these completions in your field development program.

