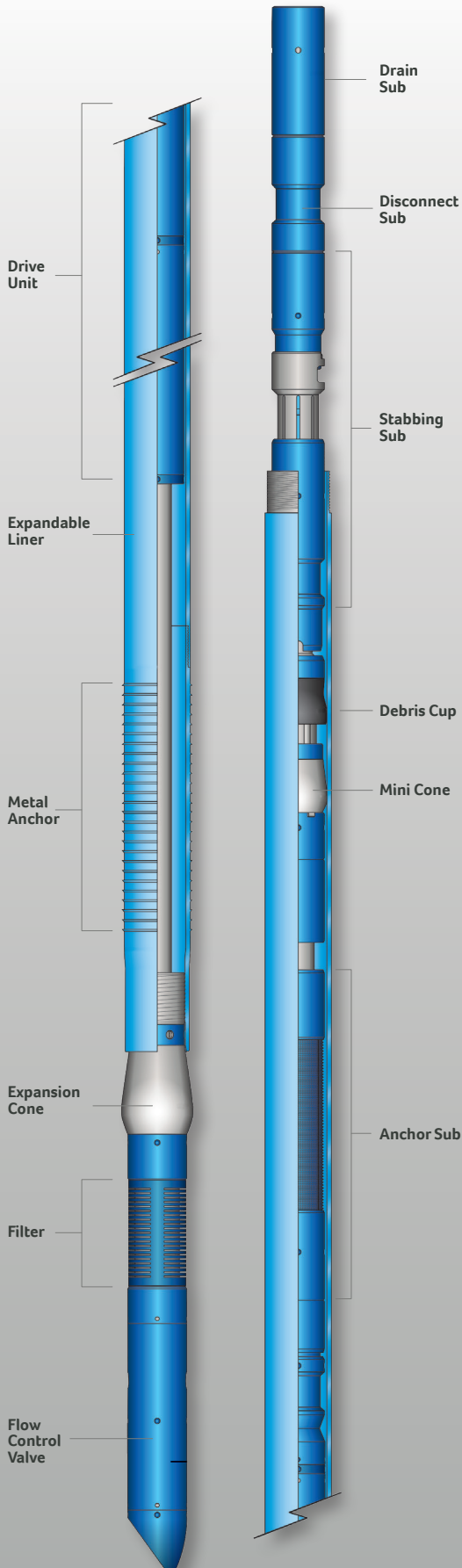


Inner Core – ReLine MNS



Our flagship ReLine MNS system provides a single trip isolation solution with significant added value of no shoe milling, enabling the relining and isolation of various casing integrity concerns.

Once installed, the ReLine MNS provides minimal loss of inner diameter (ID), whilst providing high burst and collapse ratings.

The MNS cased hole system is designed for deployment primarily on jointed pipe but can be adapted in certain applications to be deployed on coil tubing, providing the ability to cover both long and short intervals.

FEATURES

- Single trip and shoeless
- Extensive size range
- Hydro mechanical bottom-up expansion
- High pressure burst & collapse ratings
- High performance material & elastomer options
- Long length isolation achieved via proprietary e2m expandable connection
- Flow activated valve to allow for pressurizing system
- Shoeless design
- Metal to metal sealing capabilities
- Minimized/slim OD to drift restrictions
- Exotic/corrosion resistant alloys available

BENEFITS

- No shoe milling requirement
- Extensive size range
- Single trip, long length isolation
- Selective placement of premium elastomers for zonal isolation
- Optimised post-expansion ID allows for maximized reserve recovery & future intervention
- Running tool design enables flexibility in liner length

APPLICATIONS

- Isolation of unwanted water & gas
- Isolation of sand screens to negate sand ingress
- Corrosion isolation
- Isolation of casing & tubular leaks
- Isolation of leaking or compromised completions components:
 - SSD (Sliding Side Door)
 - ICV (Inflow Control Valve)
 - ICD (Inflow Control Device)
 - GLV (Gas Lift Valve)
 - CIV (Chemical Injection Valve)
- Velocity string
- Refrac/recompletion
- Parted casing
- Leaking liner hanger
- Zonal isolation

CORE PRODUCT SYNERGIES (CPS)

- Origin WBCU portfolio



SPECIFICATIONS

Parent Casing							Pre-Expanded Running Specs			Expanded Geometry				Expanded Performance	
OD	Weight	Wall Thickness	ID	API ID Min	API ID Max	Nominal Drift ID	OD	Wall Thickness	Max RIH OD	OD	Nominal ID	Special Drift	Expansion Ratio	Internal Yield Pressure	Collapse Pressure
[in]	[lb/ft]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[%]	[psi]	[psi]
9.625	53.5	0.545	8.535	8.487	8.683	8.379	7.625	0.430	8.105	8.284	7.485	7.360	10.6	7,003	3,940
9.625	53.5	0.545	8.535	8.487	8.683	8.379	7.625	0.375	8.015	8.330	7.635	7.510	11.1	6,078	2,770
9.625	47.0	0.472	8.681	8.633	8.821	8.525	7.625	0.375	8.025	8.480	7.797	7.672	13.4	5,994	2,550
7.625	26.4	0.328	6.969	6.931	7.076	6.844	6.000	0.324	6.380	6.717	6.132	6.007	14.6	6,549	3,100
7.000	38.0	0.540	5.920	5.885	6.043	5.795	5.500	0.304	5.800	5.703	5.114	5.054	4.5	7,092	4,570
7.000	35.0	0.498	6.004	5.969	6.122	5.879	5.500	0.361	5.850	5.795	5.106	5.046	6.9	8,338	5,970
7.000	35.0	0.498	6.004	5.969	6.122	5.879	5.500	0.304	5.800	5.791	5.209	5.149	6.5	7,020	4,310
7.000	32.0	0.453	6.094	6.059	6.207	5.969	5.500	0.361	5.850	5.888	5.210	5.150	9.0	8,245	5,640
7.000	32.0	0.453	6.094	6.059	6.207	5.969	5.500	0.304	5.800	5.884	5.311	5.251	8.6	6,941	4,030
7.000	29.0	0.408	6.184	6.149	6.293	6.059	5.500	0.361	5.850	5.983	5.315	5.255	11.2	8,149	5,310
7.000	26.0	0.362	6.276	6.241	6.380	6.151	5.500	0.361	5.850	6.078	5.421	5.361	13.4	8,051	5,000
7.000	26.0	0.362	6.276	6.241	6.380	6.151	5.500	0.304	5.800	6.074	5.518	5.458	12.8	6,777	3,500
7.000	23.0	0.317	6.366	6.331	6.465	6.241	5.500	0.361	5.850	6.172	5.526	5.466	15.6	7,951	4,690
7.000	20.0	0.272	6.456	6.421	6.551	6.331	5.500	0.361	5.850	6.266	5.630	5.570	17.8	7,851	4,400
7.000	20.0	0.272	6.456	6.421	6.551	6.331	5.500	0.304	5.800	6.262	5.722	5.662	17.0	6,610	3,010
6.625	24.0	0.352	5.921	5.888	6.020	5.796	5.500	0.304	5.800	5.704	5.115	5.055	4.6	7,091	4,570

1. All specs listed above based on MTX-60 grade material. Other material grades and exotic materials are available upon request.

2. Pressure Ratings are calculated assuming liner is expanded in tension.

3. Rupture Pressure provided is calculated pressure expanded liner will rupture under applied internal pressure.

4. All values calculated at ambient temperature unless otherwise noted.

5. Coretrax makes no warranties, guarantees, or representations, express or implied, as to the accuracy of the data, calculations and or values contained herein. In no event shall Coretrax be liable for incidental, indirect, punitive, or consequential damages arising out of the use of any products, materials, data, calculations and or values herein. Values subject to change without notice. Hard copies are considered uncontrolled.

SPECIFICATIONS

Parent Casing							Pre-Expanded Running Specs			Expanded Geometry				Expanded Performance	
OD	Weight	Wall Thickness	ID	API ID Min	API ID Max	Nominal Drift ID	OD	Wall Thickness	Maximum RIH OD	OD	Nominal ID	Special Drift	Expansion Ratio	Internal Yield Pressure	Collapse Pressure
[in]	[lb/ft]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[%]	[psi]	[psi]
5.500	23.0	0.415	4.670	4.643	4.765	4.545	4.250	0.310	4.490	4.539	3.956	3.896	9.0	10,041	7,680
5.500	23.0	0.415	4.670	4.643	4.765	4.545	4.250	0.250	4.490	4.538	4.066	4.006	8.4	8,090	5,080
5.500	20.0	0.361	4.778	4.751	4.868	4.653	4.250	0.310	4.490	4.652	4.084	4.024	12.5	9,861	7,010
5.500	20.0	0.361	4.778	4.751	4.868	4.653	4.250	0.250	4.490	4.651	4.190	4.130	11.7	7,944	4,560
5.500	17.0	0.304	4.892	4.865	4.976	4.767	4.250	0.310	4.490	4.771	4.218	4.158	16.2	9,664	6,350
5.500	17.0	0.304	4.892	4.865	4.976	4.767	4.250	0.250	4.490	4.770	4.321	4.261	15.2	7,786	4,040
5.500	15.5	0.275	4.950	4.923	5.031	4.825	4.250	0.310	4.490	4.830	4.387	4.327	17.0	7,704	3,780
5.500	15.5	0.275	4.950	4.923	5.031	4.825	4.250	0.250	4.490	4.832	4.287	4.227	18.1	9,561	6,020
5.500	14.0	0.244	5.012	4.887	4.250	4.887	4.250	0.310	4.490	4.897	4.360	4.300	20.1	9,448	5,680
5.500	14.0	0.244	5.012	4.887	4.250	4.887	4.250	0.250	4.490	4.895	4.458	4.398	18.9	7,616	3,520
5.000	26.7	0.562	3.876	3.851	3.984	3.751	3.500	0.254	3.740	3.745	3.269	3.209	9.2	9,976	7,560
5.000	18.0	0.362	4.276	4.251	4.361	4.151	3.875	0.254	4.115	4.145	3.667	3.607	8.9	9,008	6,280
4.500	15.1	0.337	3.826	3.804	3.904	3.701	3.500	0.254	3.740	3.692	3.209	3.149	7.3	10,075	7,950
4.500	13.5	0.290	3.920	3.898	3.993	3.795	3.500	0.254	3.740	3.792	3.321	3.261	11.0	9,887	7,220
4.500	12.6	0.271	3.958	3.936	4.029	3.833	3.500	0.254	3.740	3.832	3.366	3.306	12.5	9,809	6,940
4.500	11.6	0.250	4.000	3.978	4.069	3.875	3.500	0.254	3.740	3.876	3.416	3.356	14.2	9,721	6,640
4.500	9.5	0.205	4.090	4.068	4.154	3.965	3.500	0.254	3.740	3.972	3.524	3.464	17.8	9,528	6,010

1. All specs listed above based on MTX-70 grade material. Other material grades and exotic materials are available upon request.
2. Pressure Ratings are calculated assuming liner is expanded in tension.
3. Rupture Pressure provided is calculated pressure expanded liner will rupture under applied internal pressure.
4. All values calculated at ambient temperature unless otherwise noted.
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