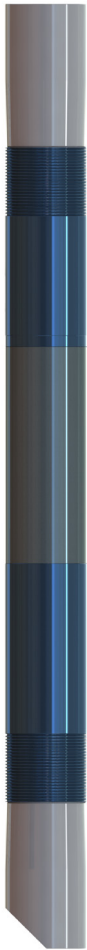


TECHNICAL INFORMATION:

PAT-4500-0135-1001, 4.5 INCH 13.5 PPF.



CASING O.D. (in)	4.5
CASING WT. (lb/ft)	13.5
CASING I.D. (in)	3.920
PATCH MAX. RUNNING O.D. (in)	3.776
PATCH I.D. AFTER SETTING (in)	3.375
PATCH DRIFT I.D. (in)	3.250
BURST HYDRAULIC RATING (psi)	7500
COLLAPSE HYDRAULIC RATING (psi)	5700

QTY.	DESCRIPTION	PART NUMBER	MATERIAL
	PAT-4500-0135-1001	X-SPAN SYSTEM	NOTED
1	PAT-4500-0135-3211	PIN ELEMENT	13 Cr
1	PAT-4500-0135-3411	BOX ELEMENT	13 Cr
1	PAT-4500-0135-1111	TOP SWAGE	4140
1	PAT-4500-0135-1311	BOTTOM SWAGE	4140
1	OOO-V569-152	O-RING	VITON
1	OOO-V569-153	O-RING	VITON
1	PAT-4500-049	50 K SHEAR RING	4140
1	PAT-4500-0135-1010	10 FT SECTION	L-80
	PAT-4500-0135-1011	1 FT SECTION	L-80
	PAT-4500-0135-1002	2 FT SECTION	L-80
	PAT-4500-0135-1005	5 FT SECTION	L-80
	PAT-4500-0135-1010	10 FT SECTION	L-80

MINIMUM EQUIPMENT REQUIRED FOR A FULL SYSTEM CONSISTS OF ONE SHORT ASSEMBLY AND ONE SECTION.

PRODUCT OFFERINGS:

The Owen X-SPAN® System is an economical, proven, durable and dependable sealing system for the isolation of perforations, splits, corrosion or leaks in all types of tubulars and conditions. This system can utilize a multitude of deployment methods in all types of well bores. The large bore assures easy passage of service tools including bridge plugs, drop balls, seal bore assemblies, logging tools and perforating systems. The minimal surface equipment required for deploying the patch and rig less intervention results in significant savings for the operator.

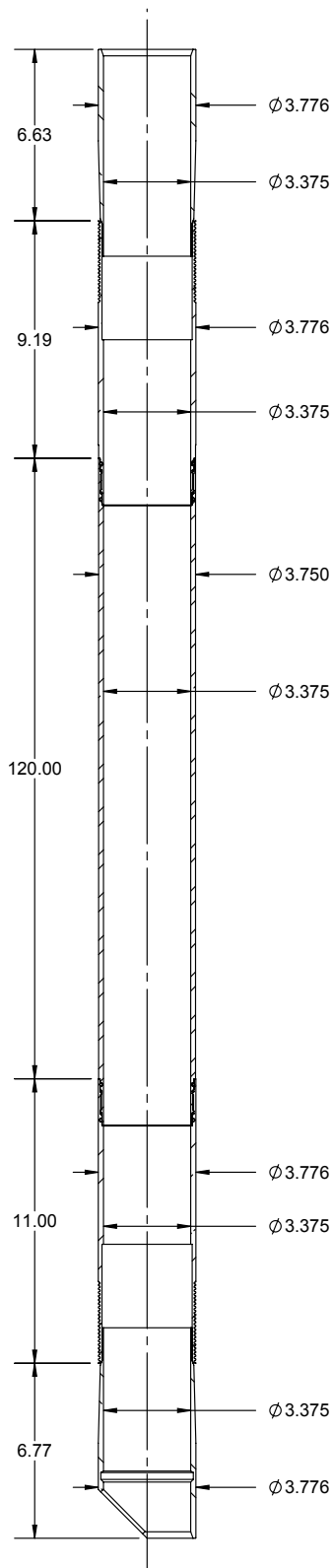
BENEFITS/CAPABILITIES:

The X-SPAN® System Offers:

- A proven, durable and dependable seal
- Deployment on electric wireline, tubing, drill pipe or coil tubing in vertical, deviated or horizontal or geothermal well bores
- An economical and reliable solution for a broad range of applications
- A large bore for easy passage of service tools
- Minimal surface equipment required for deployment

TECHNICAL INFORMATION:

PAT-4500-0135-1001, 4.5 INCH 13.5 PPF.



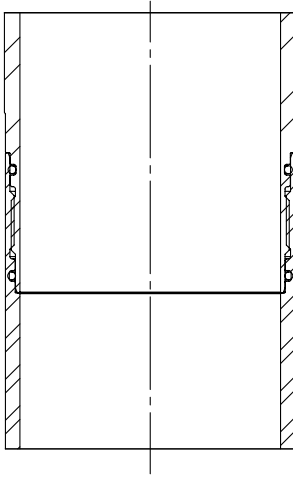
CASING O.D. (in)	4.5
CASING WT. (lb/ft)	13.5
CASING I.D. (in)	3.920
PATCH MAX. RUNNING O.D. (in)	3.776
PATCH I.D. AFTER SETTING (in)	3.375
PATCH DRIFT I.D. (in)	3.250
BURST HYDRAULIC RATING (psi)	7500
COLLAPSE HYDRAULIC RATING (psi)	5700

QTY.	DESCRIPTION	PART NUMBER	MATERIAL
1	PIN ELEMENT	PAT-4500-0135-3211	13 CR
1	BOX ELEMENT	PAT-4500-0135-3411	13 CR
1	TOP SWAGE	PAT-4500-0135-1111	4140
1	BOTTOM SWAGE	PAT-4500-0135-1311	4140
N+1	O-RING	OOO-V569-152	VITON
N+1	O-RING	OOO-V569-153	VITON
1	50 K SHEAR RING	PAT-4500-049	4140
1	SET SCREW 1/4 INCH X 20 TPI, 5/16 INCH	PUR-0501-030	ALLOY
N	10 FT SECTION	PAT-4500-0135-1010	4140 L-80
1	SLEEVE NUT	SET-3250-120	4130 / 4140
1	SLEEVE LOCK NUT	SET-3250-121	4130 / 4140
1	QUICK CHANGE ROD	SET-3250-130	4130 / 4140
1	QUICK CHANGE NUT	SET-3250-131	4130 / 4140
1	SETTING SLEEVE ASSEMBLY	SET-3250-122	NOTED
1	TOP ADAPTER ROD	SET-3250-132	4130 / 4140
N+1	ROD TANDEM CONNECTOR	SET-3250-133	4130 / 4140
N	10 FT. ROD	SET-3250-134	4130 / 4140
OPT.	5 FT ROD	SET-3250-135	4130 / 4140
1	BOTTOM ROD	SET-3250-136	4130 / 4140
1	COLLET ASSEMBLY	SET-3250-137	NOTED
1	COLLET BODY	SET-3250-138	4140
1	END SUB	SET-3250-139	4140 / 4142
1	COLLET SUPPORT	SET-3250-140B	4140
N	ROD SUPPORT	SET-3250-142	ALUMINIUM

MINIMUM EQUIPMENT REQUIRED FOR 10 FT. SYSTEM

EXTENSION SPECIFICATIONS:

PAT-4500-0135-1001, 4.5 INCH 13.5 PPF.



PART NUMBER	LENGTH	OAL	WEIGHT	MATERIAL
PAT-4500-0135-1011	12	13.82	7.09	L-80
PAT-4500-0135-1002	24	25.82	14.23	L-80
PAT-4500-0135-1005	60	61.82	35.66	L-80
PAT-4500-0135-1010	120	121.82	71.37	L-80

PATCH TENSILE RATING	43,000
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SYSTEM WEIGHTS:

	WEIGHT (LBS.)
PAT-4500-0135-1001	19.6
10 FT PATCH RUNNING WEIGHT	201.44
EA. ADDITIONAL 10 FT. LGTH ADD	133.37

SETTING TOOL OPTIONS:

HYDRAULIC			WEIGHT (LBS)
3-1/8 INCH HYDARULIC	SET-3125-010		300
3-1/4 INCH MULTISTAGE SETTING TOOL INTERNALLY STROKED (HYDRAULIC)	SET-3250-410		287
	SCREEN SUB	TT0798-288A	
	CIRCULATION SUB	SET-2875-010	
	DUMP SUB	OT0710-288B-000	

PYROTECHNIC			WEIGHT (LBS)
3-1/4 INCH MULTISTAGE SETTING TOOL	SET-3250-000		206
3-1/4 INCH MULTISTAGE SETTING TOOL INTERNALLY STROKED	SET-3250-400		200
	POWER CHARGE	OPC-3250-000-MS	
	IGNITER	DET-5306-074	
		DET-5306-008	