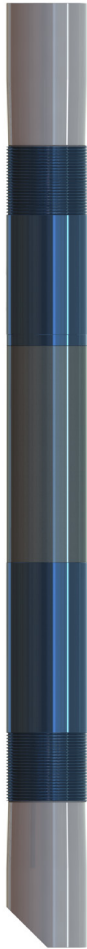


TECHNICAL INFORMATION:

PAT-4500-003, 4.5 INCH 10.5-9.5 PPF



CASING O.D. (in)	4.5
CASING WT. (lb/ft)	9.5
CASING I.D. (in)	4.090
PATCH MAX. RUNNING O.D. (in)	3.875
PATCH I.D. AFTER SETTING (in)	3.375
PATCH DRIFT I.D. (in)	3.250
BURST HYDRAULIC RATING (psi)	5130
COLLAPSE HYDRAULIC RATING (psi)	4990

QTY.	DESCRIPTION	PART NUMBER	MATERIAL
	X-SPAN SYSTEM	PAT-4500-003	NOTED
1	PIN ELEMENT	PAT-4500-040	4140 / 4142
1	BOX ELEMENT	PAT-4500-041	4140 / 4142
1	TOP SWAGE	PAT-4500-044	4130 / 4140 / 4142
1	BOTTOM SWAGE	PAT-4500-045	4130 / 4140 / 4142
1	O-RING	OOO-V569-152	VITON
1	O-RING	OOO-V569-153	VITON
1	50 K SHEAR RING	PAT-4500-049	4140
1	10 FT. SECTION	PAT-4500-037	1018 / 1026
	5 FT. SECTION	PAT-4500-048	1018 / 1026

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.

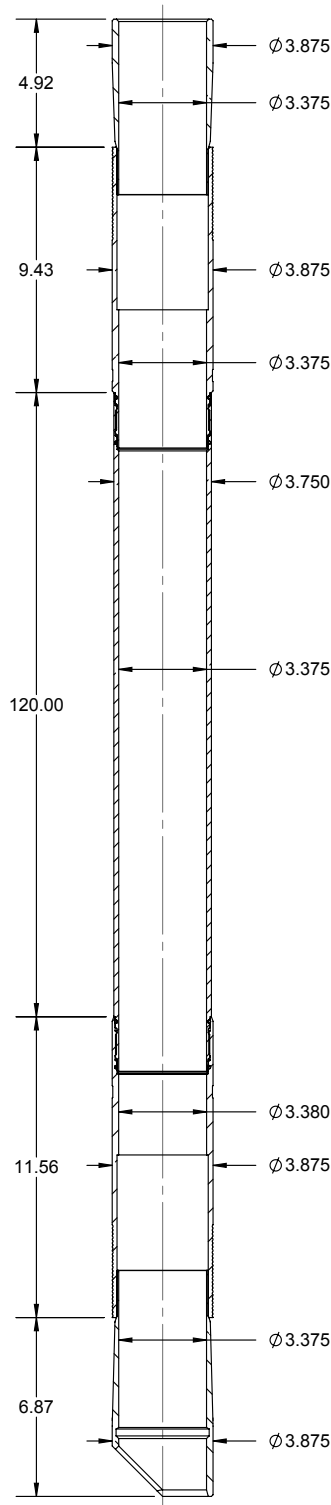
BENEFITS/CAPABILITIES:

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-4500-003, 4.5 INCH 10.5-9.5 PPF



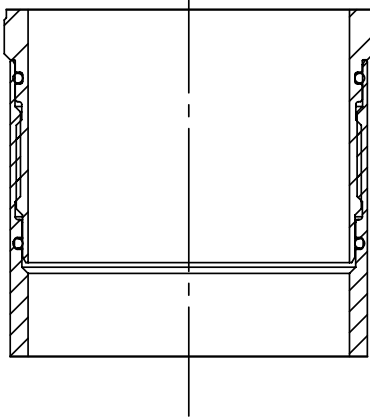
CASING O.D. (in)	4.5
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COLLAPSE HYDRAULIC RATING (psi)	4990

QTY.	DESCRIPTION	PART NUMBER	MATERIAL
1	PIN ELEMENT	PAT-4500-040	4140 / 4142
1	BOX ELEMENT	PAT-4500-041	4140 / 4142
1	TOP SWAGE	PAT-4500-044	4130 / 4140 / 4142
1	BOTTOM SWAGE	PAT-4500-045	4130 / 4140 / 4142
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-4500-037	1018 / 1026
1	SLEEVE NUT	SET-3250-120	4130 / 4140
1	SLEEVE LOCK NUT	SET-3250-121	4130 / 4140
1	SETTING SLEEVE ASSEMBLY	SET-3250-122	NOTED
1	QUICK CHANGE ROD	SET-3250-130	4130 / 4140
1	QUICK CHANGE NUT	SET-3250-131	4130 / 4140
1	LOCK NUT	SET-3500-025	1213 - 1215
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-3250-140	4140
N	ROD SUPPORT	SET-3250-142	ALUMINIUM

MINIMUM EQUIPMENT REQUIRED FOR 10 FT. SYSTEM

EXTENSION SPECIFICATIONS:

PAT-4500-003, 4.5 INCH 10.5-9.5 PPF



PART NUMBER	LENGTH	OAL	WEIGHT	MATERIAL
PAT-4500-037	120	122.13	71.3	1018 / 1026
PAT-4500-048	60	62.13	35.7	1018 / 1026

PATCH TENSILE RATING	32,000 LBF.
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SYSTEM WEIGHTS:

SYSTEM WEIGHTS	WEIGHT (LBS.)
PAT-4500-003	23.6
10 FT PATCH RUNNING WEIGHT	198.9
EA. ADDITIONAL 10 FT. LGTH ADD	133.3

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	