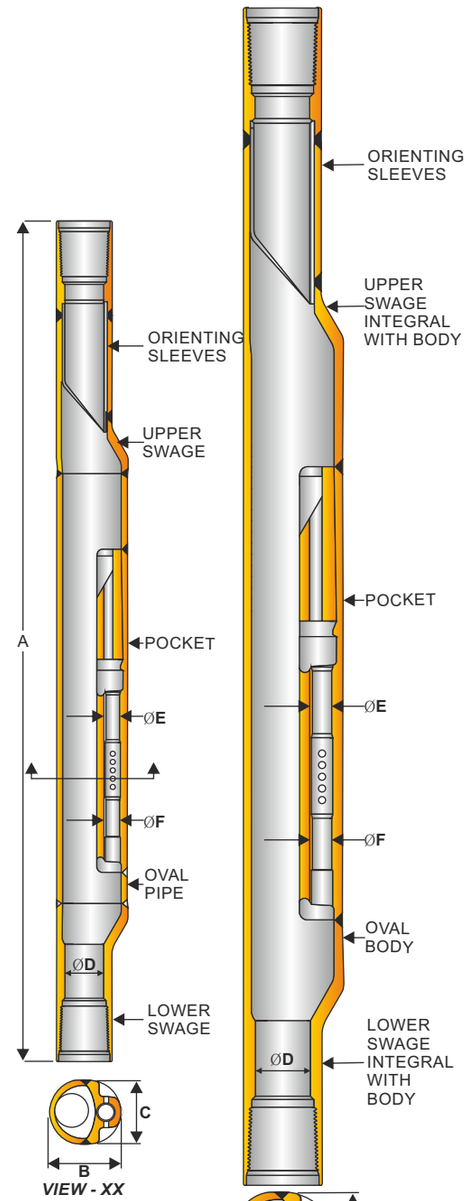
CYAN MAGENTA YELLOW BLACK

SIDE POCKET MANDREL



TMP Series Mandrel For 1" O.D. Valve (Welded Swages)

TP Series Mandrel For 1.1/2" O.D. Valve (Integral Swages)

TMP and TP Series Side Pocket Mandrel:

PARVEEN'S TMP and TP Series Side Pocket Mandrels consist of forged pocket with integral tool discriminator, oval pipe, swages and orienting sleeves. Its orienting sleeve allows precise and proper alignment during the insertion of positioning devices / tools into the side pocket. Forged tool discriminator guides the proper diameter side pocket devices / tools into the mandrel pocket and deflects larger tools into the tubing bore to prevent damage to the positioning devices / tools.

In Gas Lift applications, high pressure gas injected into the casing annulus flows through the ports of the pocket in the gas lift valve and into the tubing. The standard pocket in the ported between the seal bores to communicate with the casing annulus and the gas is circulated down the annulus through the gas lift valve into the tubing. These mandrels are used for tubing flow applications.

Both TMP and TP series feature multiple porting variations for specific applications i.e. annulus flow, chamber lift, fluid injection water flood installations.

TMP and TPC Series Side Pocket Mandrel:

These mandrels are used in annulus flow applications in which a snorkel functions as an exhaust port. Snorkel located at the bottom of the side pocket, extends downward into casing annulus. The holes in the mandrel side pocket directly communicate with the tubing. High pressure gas injected into the tubing flows through the port between the packing bores into the pocket of the mandrel, then through the ports into the gas lift valve, downward through the snorkel and then finally into the casing.

TMPE and TPE Series Side Pocket Mandrel:

These mandrels are mainly used in chamber lift applications. They have no ports in the side pocket for communication with the tubing. Instead of that, an exhaust port is located at the bottom of the side pocket. This port is extended downward into the casing annulus through a 1/2" pipe connected to the top packer of a chamber lift installation. In gas lift application, high pressure gas injected into the casing annulus flows through the ports in the side of the mandrel, the through the port in the gas lift valve and finally downward to the exhaust port.

TMPS and TPS Series Side Pocket Mandrel:

These mandrels are used in single string, multi zone fluid injection water flood installations. The casing exhaust port located at the bottom of the side pocket is used to protect the casing from high velocity turbulence related with water flooding. In water flood operations, water injected into the tubing flows into the mandrel side pocket, through the water flood flow regulator valve and downward through the exhaust port. A non retrievable check valve can be attached directly to the exhaust port. A non retrievable check valve can be attached directly to the exhaust port to prevent back flow from the annulus when the water flood regulator valve is removed.

CYAN MAGENTA YELLOW BLACK

SIDE POCKET MANDREL

ENGINEERING DATA FOR SIDE POCKET MANDRELS											
Tubing Size in.	Valve OD in.	Mandrel Type	Mandrel Shape	Dimensions (Inch) Length* A	Major OD B	Minor OD C	I.D ØD	Drift Dia	ØE E	ØF F	Assembly Part No. a.) With Welded Swages b.) With Integral Swages
2.3/8	1.0	TMP	OVAL	83	4.25	2.92	2.00	1.901	1.027	1.027	a.) 238X1-D1901-SXXXX-XXW-X b.) 238X2-D1901-SXXXX-XXI-X
2.3/8	1.5	TP	OVAL	102	4.75	4.00	2.00	1.901	1.6	1.5	a.) 238X2-D1901-SXXXX-XXW-X b.) 238X1-D1901-SXXXX-XXI-X
2.7/8	1.0	TMP	OVAL	85	4.75	4.00	2.441	2.347	1.027	1.027	a.) 288X1-D2347-SXXXX-XXW-X b.) 288X1-D2347-SXXXX-XXI-X
2.7/8	1.5	TP	OVAL	103	5.50	4.59	2.441	2.347	1.6	1.5	a.) 288X2-D2347-SXXXX-XXW-X b.) 288X2-D2347-SXXXX-XXI-X
3.1/2	1.0	TMP	OVAL	85	5.31	4.12	2.992	2.867	1.027	1.027	a.) 350X1-D2867-SXXXX-XXW-X b.) 350X1-D2867-SXXXX-XXI-X
3.1/2	1.5	TP	OVAL	104	6.06	5.00	2.992	2.867	1.6	1.5	a.) 350X2-D2867-SXXXX-XXW-X b.) 350X2-D2867-SXXXX-XXI-X
4.0	1.0	TMP	OVAL	86	5.85	5.00	3.476	3.351	1.027	1.027	a.) 400X1-D3351-SXXXX-XXW-X b.) 400X1-D3351-SXXXX-XXI-X
4.0	1.5	TP	OVAL	107	6.63	5.55	3.476	3.351	1.6	1.5	a.) 400X2-D3351-SXXXX-XXW-X b.) 400X2-D3351-SXXXX-XXI-X
4.1/2	1.0	TMP	OVAL	86	6.45	5.50	3.958	3.833	1.027	1.027	a.) 450X1-D3833-SXXXX-XXW-X b.) 450X1-D3833-SXXXX-XXI-X
4.1/2	1.5	TP	OVAL	107	7.03	5.625	3.958	3.833	1.6	1.5	a.) 450X2-D3833-SXXXX-XXW-X b.) 450X2-D3833-SXXXX-XXI-X
5.0	1.5	TP	OVAL	116	7.94	6.80	4.408	4.283	1.6	1.5	a.) 500X2-D4283-SXXXX-XXW-X b.) 500X2-D4283-SXXXX-XXI-X
5.1/2	1.0	TMP	OVAL	87	7.94	6.80	4.778	4.653	1.6	1.5	a.) 550X1-D4653-SXXXX-XXW-X b.) 550X1-D4653-SXXXX-XXI-X
5.1/2	1.5	TP	OVAL	108	7.44	6.05	4.00	3.833	1.6	1.5	a.) 550X2-D3833-SXXXX-XXW-X b.) 550X2-D3833-SXXXX-XXI-X
5.1/2	1.5	TP	OVAL	108	7.94	6.80	4.778	4.653	1.6	1.5	a.) 550X2-D4653-SXXXX-XXW-X b.) 550X2-D4653-SXXXX-XXI-X
7.0	1.0	TMP	ROUND	90	8.25	8.25	6.184 **	6.059	1.027	1.027	a.) 700X1-D6059-SXXXX-XXW-X b.) 700X1-D6059-SXXXX-XXI-X
7.0	1.5	TP	OVAL	117	9.38	8.38	6.184 **	6.059	1.6	1.5	a.) 700X2-D6059-SXXXX-XXW-X b.) 700X2-D6059-SXXXX-XXI-X

CHEMICAL INJECTION MANDREL

This Mandrel (similar to Model TMP & TP) is used for Chemical Injection through a capilary line running from the surface to the Mandrel. A Lug with 1/4" NPT Connection is welded to the upper swage and to a small diameter tube connected to pocket.



Chemical Injection Mandrel