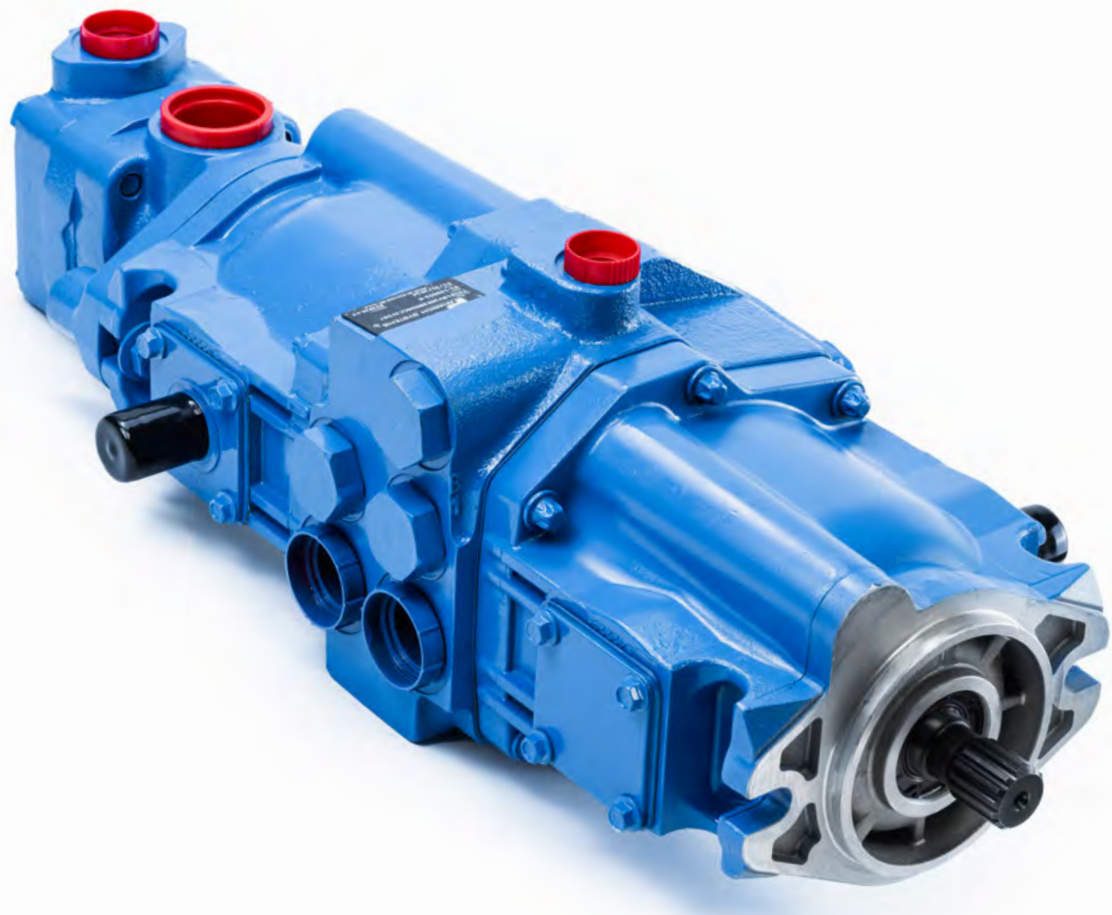
PANAGON systems

HYDRAULIC PUMP MANUFACTURING

TA PISTON PUMP MODELS BUILT BY US

TA 19V10
TA 19V20
TA 1919V20



PARTS INFORMATION GUIDE

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About Us



Founded nearly 35 years ago, Panagon Systems has remained a trusted company producing hydraulic parts on demand for a number of shops, manufacturers and industries. The company, located in Macomb, Michigan, is a hydraulic piston pumps and parts manufacturer, providing a vast variety of current and obsolete components. With a variety of CNC machines, Panagon produces finished product from raw materials. Which are then assembled, tested, painted and shipped from our facility. Panagon Systems attempts to fill the void OEM's create by manufacturing the phased out, expensive, unavailable pumps, motors and transmissions.

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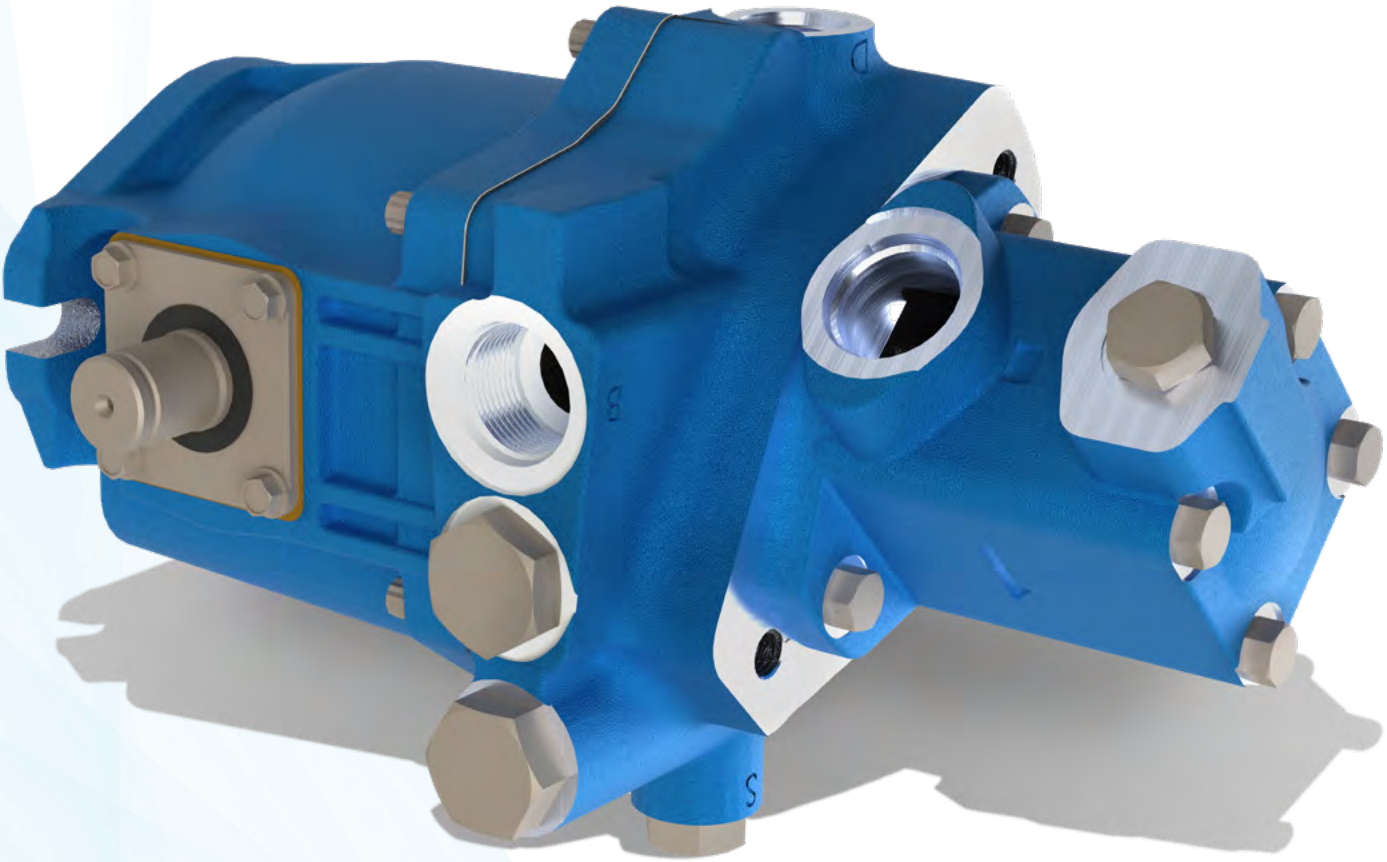
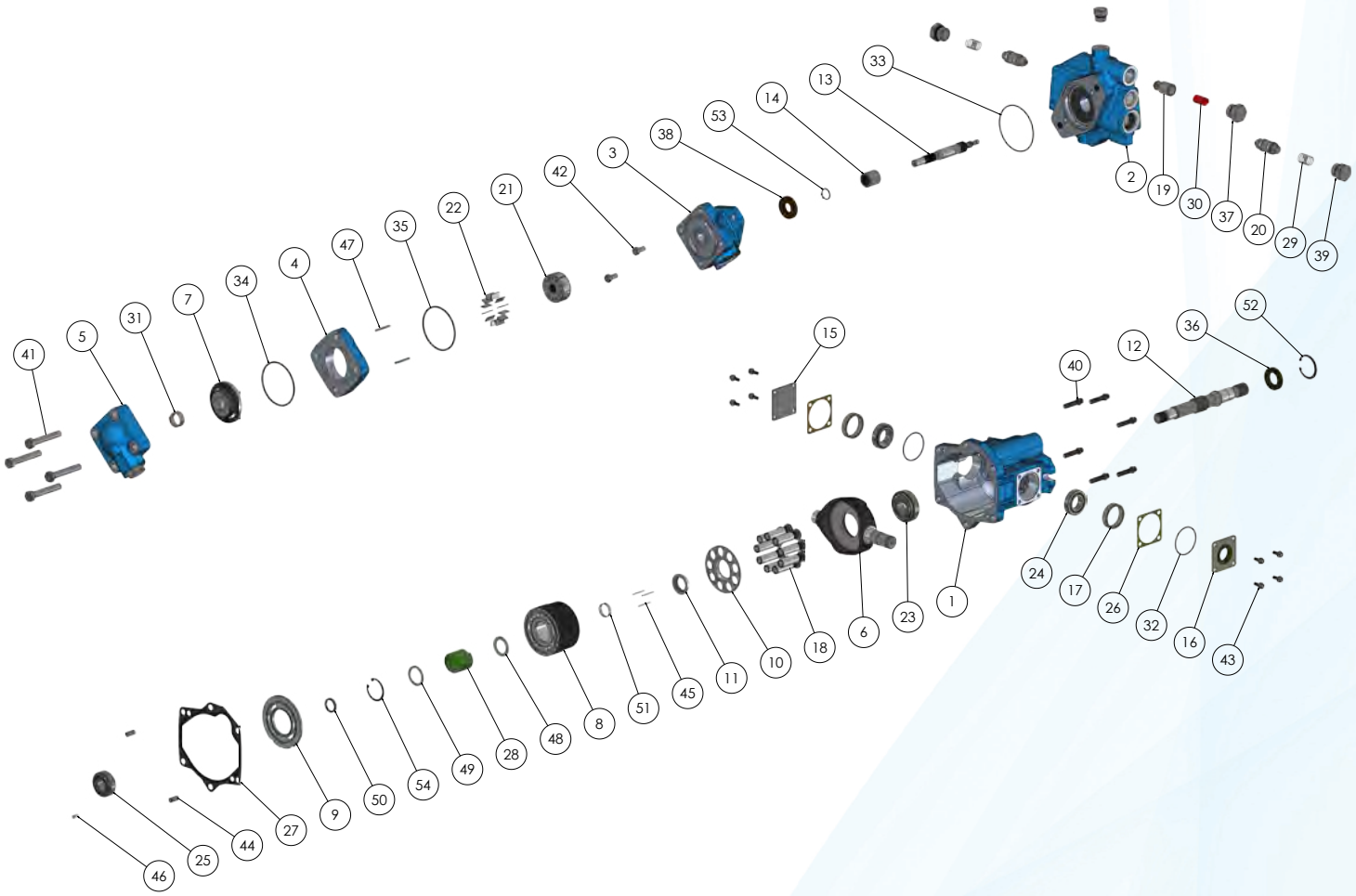


Model TA19V10



Model TA19V10

ITEM	PART NUMBER Panagon	PART NUMBER OEM	QTY	NOTE	DESCRIPTION
1	PS9486	422309	1		Housing
2	PS50380	422343	1		Valve Block
3	PS6421	317668	1		Adapter Body
4	See Table 1		1		Rotor Ring
5	PS6417	372865	1		End Cover
6	PS1203	416636	1		Yoke
7	PS2456	374343	1		Pressure Plate S/A
8	PS1866	426836	1	B	Cylinder block
9	PS116339	424481	1		Control Plate
10	PS1301	402650	1	B	Shoe Plate
11	PS1300	402580	1	B	Spherical Washer
12	PS1878	423420	1		Drive Shaft
13	PS1877	423577	1		Intermediate Shaft
14	PS1649	416661	1		Coupler
15	PS7568	416637	1		Pintle Cover
16	PS122323	416638	1		Pintle Cover Open
17	PS10082	410053	2		Pintle Spacer
18	PS1310	923939	9	B	Piston / Shoe S/A
19	PS7569	416645	1		Replenishing Check Poppet
20	PS10085	942429	2		Relief Valve
21	See Table 1		1		Rotor
22	See Table 1		12		Vanes
23	PS1335	419627	1		Bearing S/A
24	PS1337	417381	2		Bearing S/A
25	PS1834	473914	1		Bearing S/A
26	PS1997	923938	2		Pintle Gasket / Shims
27	PS1417	423617	1	A	Gasket

ITEM	PART NUMBER Panagon	PART NUMBER OEM	QTY	NOTE	DESCRIPTION
28	PS1920	424526	1	B	Spring
29	PS10078	416602	2		Spring
30	PS9604	424525	1		Spring
31	PS10094	345262	1		Spring
32	PS135297	174140	2	A	“O”-Ring
33	PS135409	353786	1	A	“O”-Ring
34	See Table 1		1	A	“O”-Ring
35	See Table 1		B	A	“O”-Ring
36	PS136810	471965	1	A	Shaft Seal
37	PS136826	263585	1	A	Shaft Seal
38	PS10077	317697	1		SAE #12 Plug
39	PS576228	416599	2		SAE #12 Plug Special
40	PS2454	427171	6		Torx Bolt, 3/8-16
41	See Table 1		4		Hex Head Bolt, 3/8-16
42	PS80952	170177	2		Hex Head Bolt, 3/8-16
43	PS8100	427172	8		Washer Hex Head Bolt, 1/4-20
44	PS10080	429325	2		Roll Pin
45	PS189	393841	3	B	Pin
46	PS10079	248910	1		Pin
47	See Table 1		2		Pin
48	PS1923	404932	1	B	Spring Guide, Inner
49	PS1925	423368	1	B	Spring Guide, Outer
50	PS5813581	4992184-xxx	1		Shaft Spacer
51	PS1928	410050	1		Pin Retainer
52	PS1956	102038	1		Retaining Ring
53	PS1916	123785	1		Retaining Ring
54	PS7146	087541	1	B	Retaining Ring

A Included in PS1205 / 920156 Seal Kit

B Included in PS1942 / 923936 Rotating Group

Parts Table

Table 1 - Cartridge and Vane

Model Code	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM
Model	Cartridge Kit		**ALL PARTS SERVICED IN CARTRIDGE KIT**										Pin		Screw	
			Ring		Rotor		Vane Kit		O-Ring (A)		O-Ring (A)					
TA19V10*-**04-****-21	PS6426	923469	PS883	317677	PS1322	351247	PS7395	923500	PS135339	199822	PS135346	199823	PS1741	039640	PS6413	001278
TA19V10*-**05-****-21	PS6425	923468	PS884	317678												
TA19V10*-**06-****-21	PS6424	923497	PS885	355641	PS1323	357286	PS2455	923501					PS1809	016662		
TA19V10*-**07-****-21	PS6423	923498	PS886	331813												

Model TA19V10

T A 1 9 V 1 0 F L - 2 A R - 0 7 A D 6 H 2 1
1 2 3 4 5 6 7 8 9 10 11 12 13

1 Transmission Pump
Rated at 72 l/min (19 USgpm) at 1800 rpm

2 Auxiliary Vane Pump

3 Vane Pump Cover Option (Omit If Not Required)
- F Flow control
- P Priority flow

4 Rotation Viewed From Shaft End
- R Right hand (Clockwise)
- L Left hand (Counter clockwise)

5 Input Shaft
- 2 SAE B-B splined

6 Control Pintle Location Viewed From Shaft End With Drain Port Up
- A Right hand side
- B Left hand side

7 Main Relief Valve
- R Relief valve
- O No relief valve

8 Vane Pump Ring Capacity at 1200 rpm
- 04 15 l/min (4 USgpm)
- 05 18 l/min (5 USgpm)
- 06 22 l/min (6 USgpm)
- 07 26 l/min (7 USgpm)

9 Vane Pump Inlet Position Viewed From Cover End
- A 45° F counterclockwise from case drain
- C 135° F clockwise from case drain

10 Position Of Vane Pump Outlet, Or Primary Outlet, Viewed From Cover End.
- A Opposite inlet
- B 90° F counterclockwise from inlet
- C In line with inlet
- D 90° F clockwise from inlet

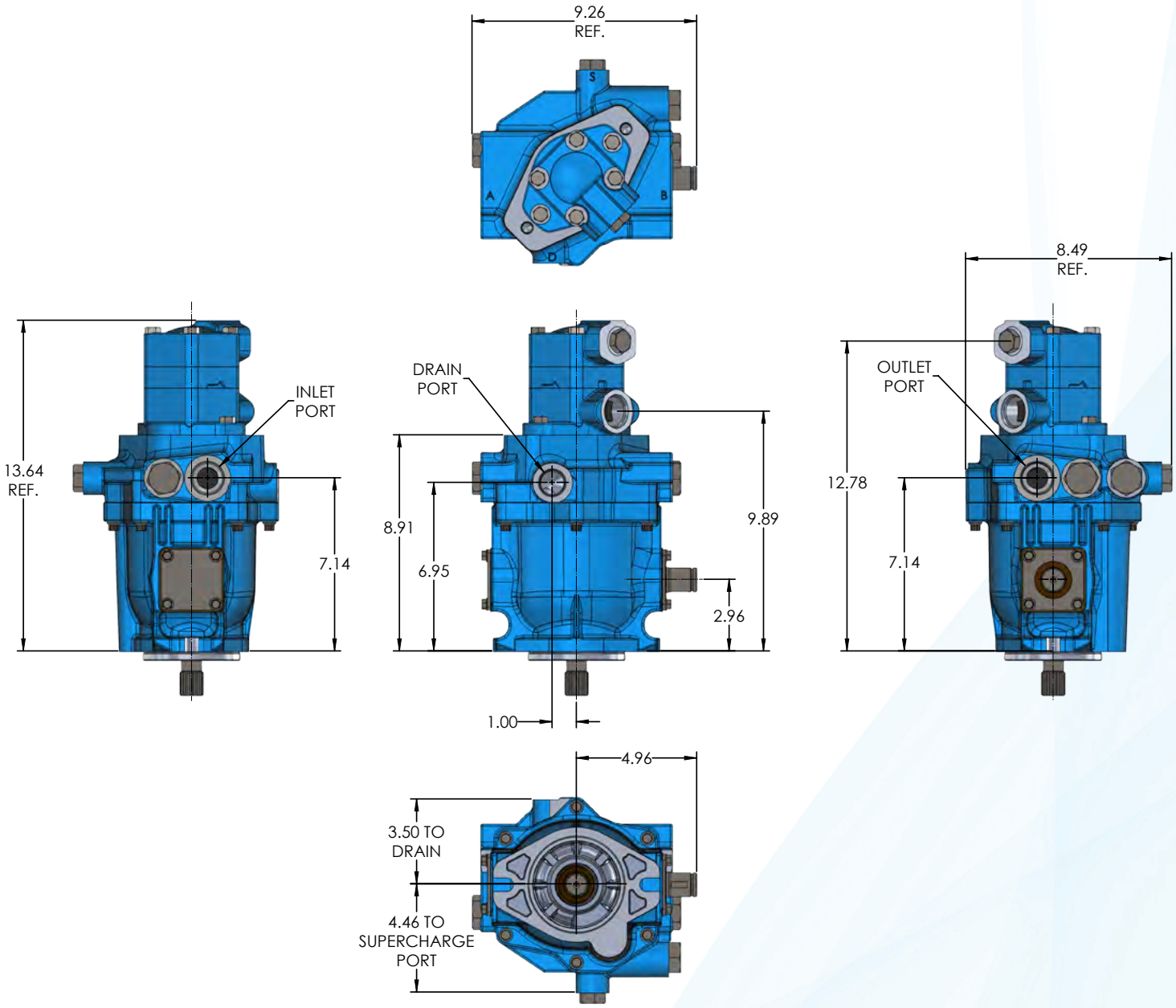
11 Flow Rate Through Orifice In "F" Cover
2, 3, 4, 5, 6, 7 or 8 USgpm

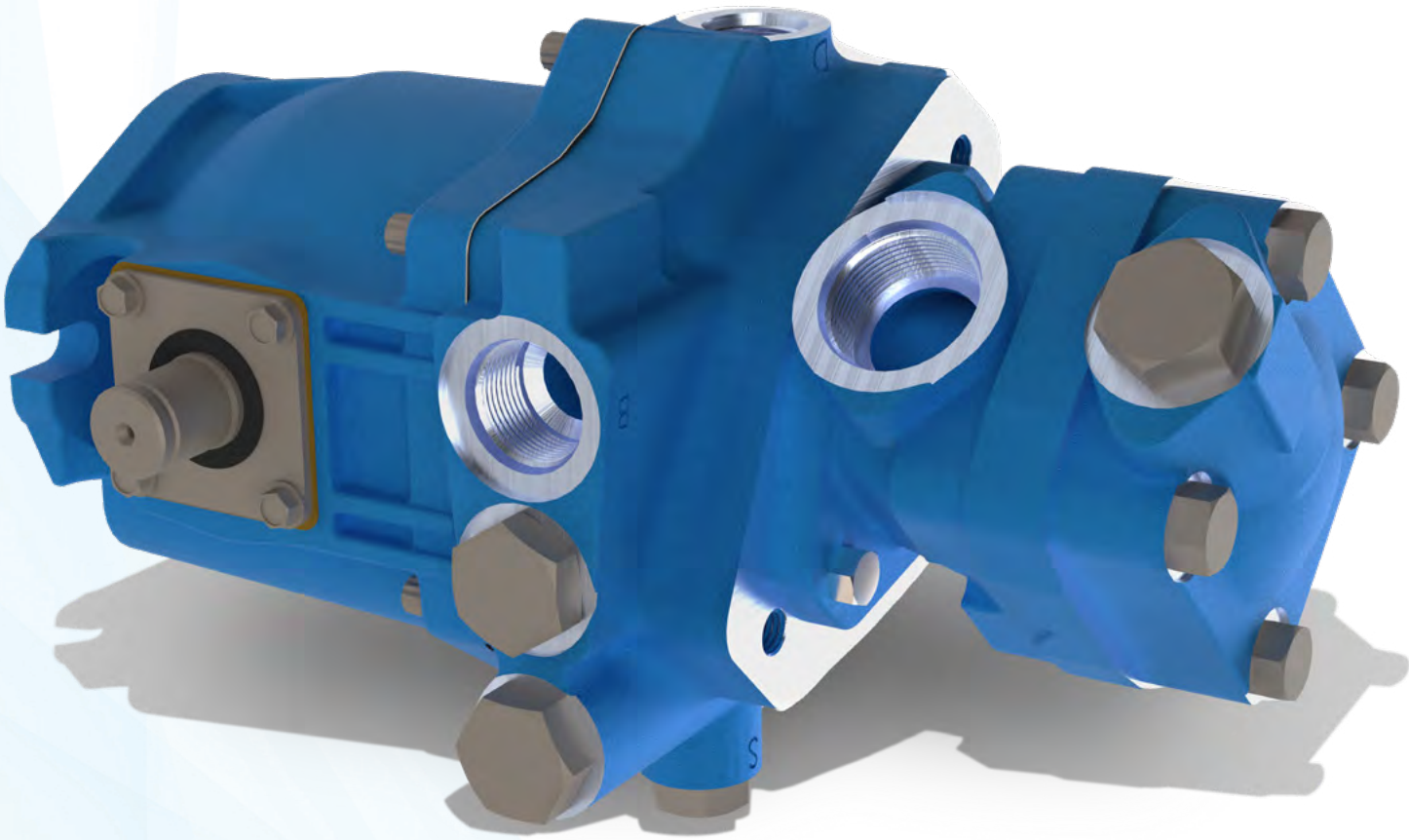
Flow Rate Through Orifice In "P" Cover
2, 3, 4, 5, or 6 USgpm

12 Vane Pump Relief Valve Setting "F" & "P" Cover
- A 17 bar (250 psi)
- B 35 bar (500 psi)
- C 51 bar (750 psi)
- D 70 bar (1000 psi)
- E 86 bar (1250 psi)
- F 100 bar (1500 psi)
- G 120 bar (1750 psi)
- H 140 bar (2000 psi)
- J 155 bar (2250 psi)
- K 175 bar (2500 psi)

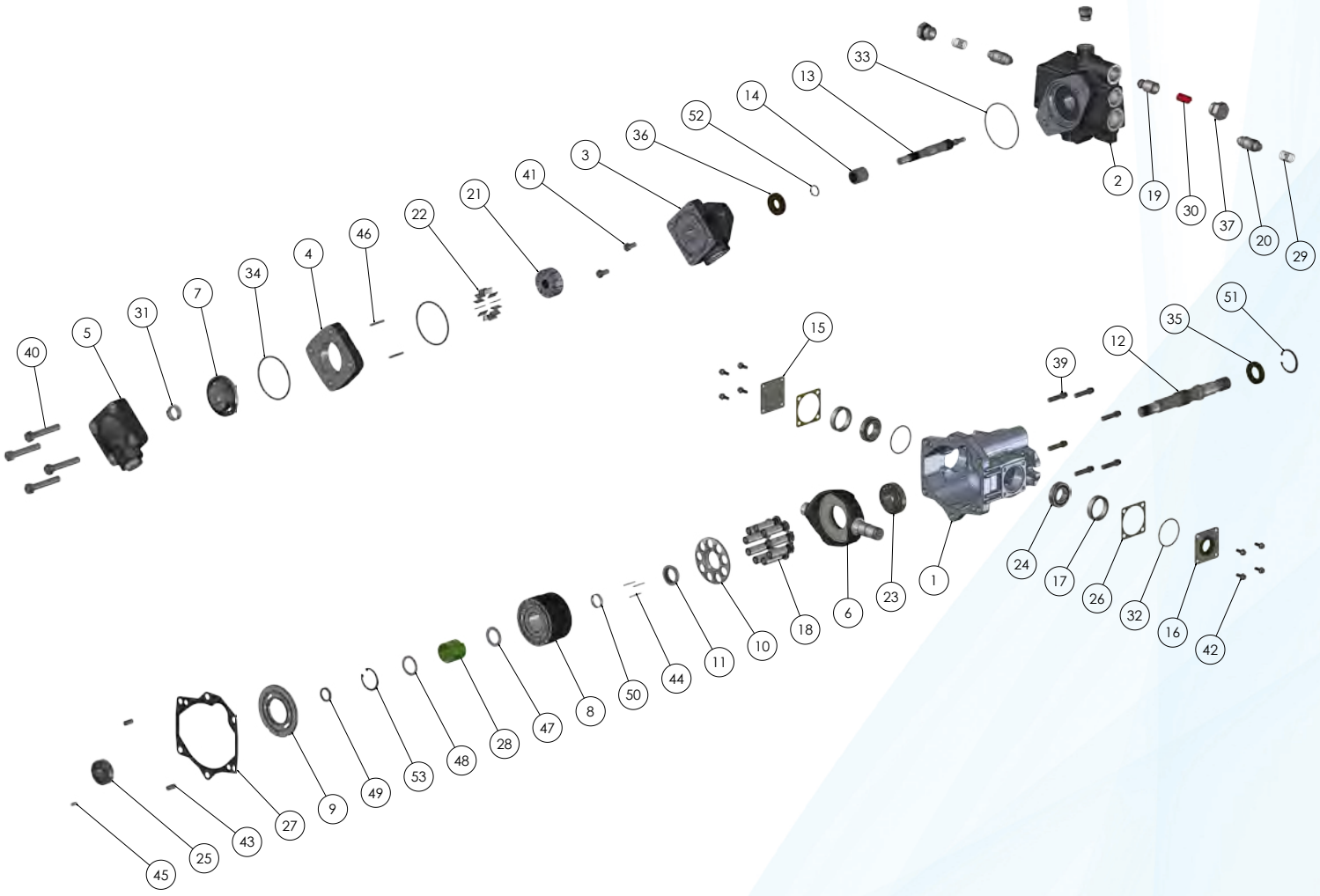
13 Design Number

Model TA19V10





Model TA19V20



Model TA19V20

ITEM	PART NUMBER Panagon	PART NUMBER OEM	QTY	NOTE	DESCRIPTION
1	PS9486	422309	1		Housing
2	PS50380	422343	1		Valve Block
3	PS1124	294266	1		Adapter Body
4	See Table 1		1		Rotor Ring
5	PS1123	293373	1		End Cover
6	PS1203	416636	1		Yoke
7	PS1152	359287	1		Pressure Plate S/A
8	PS1866	426836	1	B	Cylinder block
9	PS116339	424481	1		Control Plate
10	PS1301	402650	1	B	Shoe Plate
11	PS1300	402580	1	B	Spherical Washer
12	PS1878	423420	1		Drive Shaft
13	PS1888	424557	1		Intermediate Shaft
14	PS1649	416661	1		Coupler
15	PS7568	416637	1		Pintle Cover
16	PS122323	416638	1		Pintle Cover Open
17	PS10082	410053	2		Pintle Spacer
18	PS1310	923939	9	B	Piston/Shoe S/A
19	PS7569	416645	1		Replenishing Check Poppet
20	PS10085	942429	2		Relief Valve
21	See Table 1		1		Rotor
22	See Table 1		12		Vanes
23	PS1335	419627	1		Bearing S/A
24	PS1337	417381	2		Bearing S/A
25	PS1834	473914	1		Bearing S/A
26	PS1997	923938	2		Pintle Gasket / Shims
27	PS1417	423617	1	A	Gasket

ITEM	PART NUMBER Panagon	PART NUMBER OEM	QTY	NOTE	DESCRIPTION
28	PS1920	424526	1	B	Spring
29	PS10078	416602	2		Spring
30	PS9604	424525	1		Spring
31	PS6344	028422	1		Spring
32	PS135297	174140	2	A	“O”-Ring
33	PS135409	353786	1	A	“O”-Ring
34	See Table 1		2	A	“O”-Ring
35	PS136810	471965	1	A	Shaft Seal
36	PS136830	229235	1	A	Shaft Seal
37	PS10077	317697	1		SAE #12 Plug
38	PS576228	416599	2		SAE #12 Plug Special
39	PS2454	427171	6		Torx Bolt, 3/8-16
40	See Table 1		4		Hex Head Bolt, 1/2-13
41	PS80952	170177	2		Hex Head Bolt, 3/8-16
42	PS8100	427172	8		Washer Hex Head Bolt, 1/4-20
43	PS10080	429325	2		Roll Pin
44	PS189	393841	3	B	Pin
45	PS10079	248910	1		Pin
46	See Table 1		2		Pin
47	PS1923	404932	1	B	Spring Guide, Inner
48	PS1925	423368	1	B	Spring Guide, Outer
49	PS5813581	4992184-xxx	1		Shaft Spacer
50	PS1928	410050	1		Pin Retainer
51	PS1956	102038	1		Retaining Ring
52	PS1916	123785	1		Retaining Ring
53	PS7146	087541	1	B	Retaining Ring

A Included in PS1851 / 920155 Seal Kit

B Included in PS1942 / 923936 Rotating Group

Parts Table

Table 1 - Cartridge and Vane

Model Code	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM
Model	Cartridge Kit		**ALL PARTS SERVICED IN CARTRIDGE KIT**									
			Ring		Rotor		Vane Kit		“O”-Ring (A)		Pin		Screw	
TA19V20*-**7*-****-21	PS6893	923481	PS854	328152	PS6359	358330	PS6363	923493	PS135843	154090	PS1741	002478	PS6384	131486
TA19V20*-**8*-****-21	PS6894	923483	PS851	331791										
TA19V20*-**9*-****-21	PS6895	923484	PS853	331789										
TA19V20*-**10*-****-21	PS7139	923620	PS1153	374309	PS104268	358332	PS6364	923478			PS1809	016662		
TA19V20*-**11*-****-21	PS6896	923482	PS856	328156										
TA19V20*-**12*-****-21	PS6897	923486	PS855	331806	PS104267	358334	PS6365	923479			PS79841	009603	PS6385	001319
TA19V20*-**13*-****-21	PS6898	923487	PS850	331807										

Model TA19V20

T A 1 9 V 2 0 F L - 2 A R - 0 7 A D 6 H 2 1
1 2 3 4 5 6 7 8 9 10 11 12 13

1 Transmission Pump
Rated at 72 I/min (19 USgpm) at 1800 rpm

2 Auxiliary Vane Pump

3 Vane Pump Cover Option (Omit If Not Required)
- F Flow control
- P Priority flow

4 Rotation Viewed From Shaft End
- R Right hand (Clockwise)
- L Left hand (Counter clockwise)

5 Input Shaft
- 2 SAE B-B splined

6 Control Pintle Location Viewed From Shaft End With Drain Port Up
- A Right hand side
- B Left hand side

7 Main Relief Valve
- R Relief valve
- O No relief valve

8 Vane Pump Ring Capacity at 1200 rpm
- 07 26 I/min (7 USgpm)
- 08 30 I/min (8 USgpm)
- 09 34 I/min (9 USgpm)
- 10 37 I/min (10 USgpm)
- 11 41 I/min (11 USgpm)
- 12 45 I/min (12 USgpm)
- 13 49 I/min (13 USgpm)

9 Vane Pump Inlet Position Viewed From Cover End
- A 45° F counterclockwise from case drain
- C 135° F clockwise from case drain

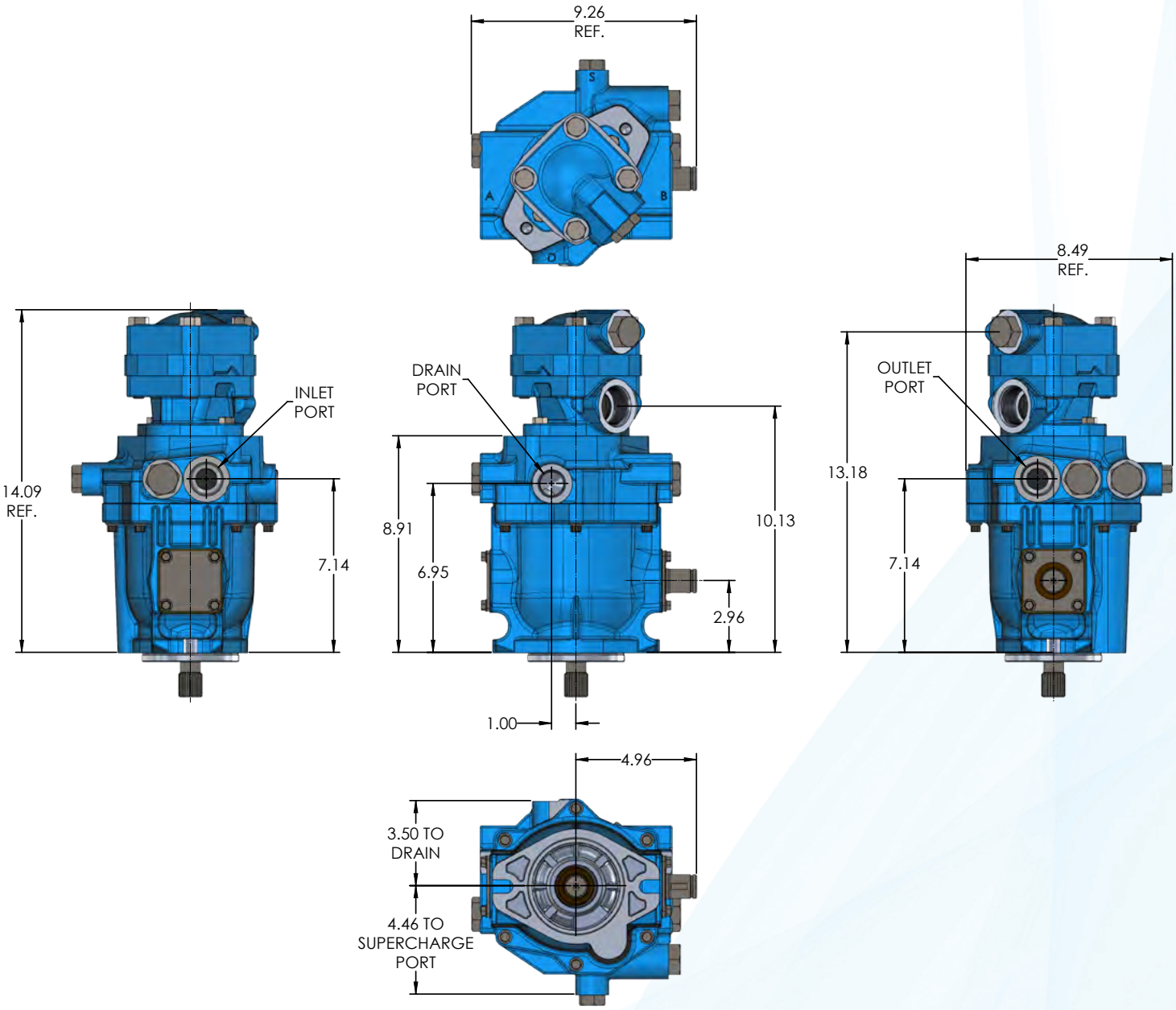
10 Position Of Vane Pump Outlet, Or Primary Outlet, Viewed From Cover End.
- A Opposite inlet
- B 90° F counterclockwise from inlet
- C In line with inlet
- D 90° F clockwise from inlet

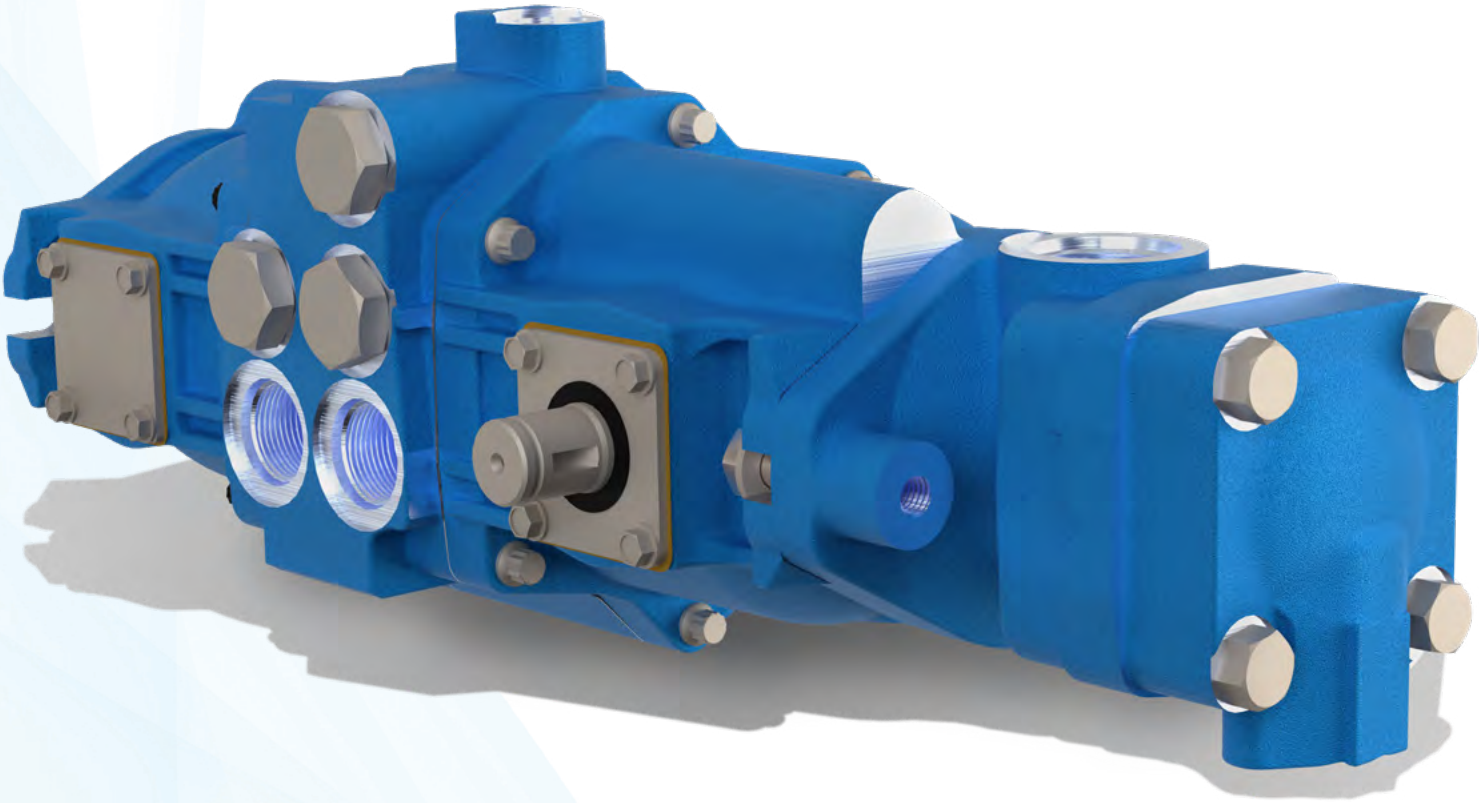
11 Flow Rate Through Orifice In "F" Cover
2, 4, 6, 8 or 10 USgpm
Flow Rate Through Orifice In "P" Cover
2, 2.5, 3, 4, 6, or 8 USgpm

12 Vane Pump Relief Valve Setting "F" & "P" Cover
- A 17 bar (250 psi) ("P" Cover Ony)
- B 35 bar (500 psi) ("P" Cover Ony)
- C 51 bar (750 psi)
- D 70 bar (1000 psi)
- E 86 bar (1250 psi)
- F 100 bar (1500 psi)
- G 120 bar (1750 psi)
- H 140 bar (2000 psi)
- J 155 bar (2250 psi)
- K 175 bar (2500 psi)

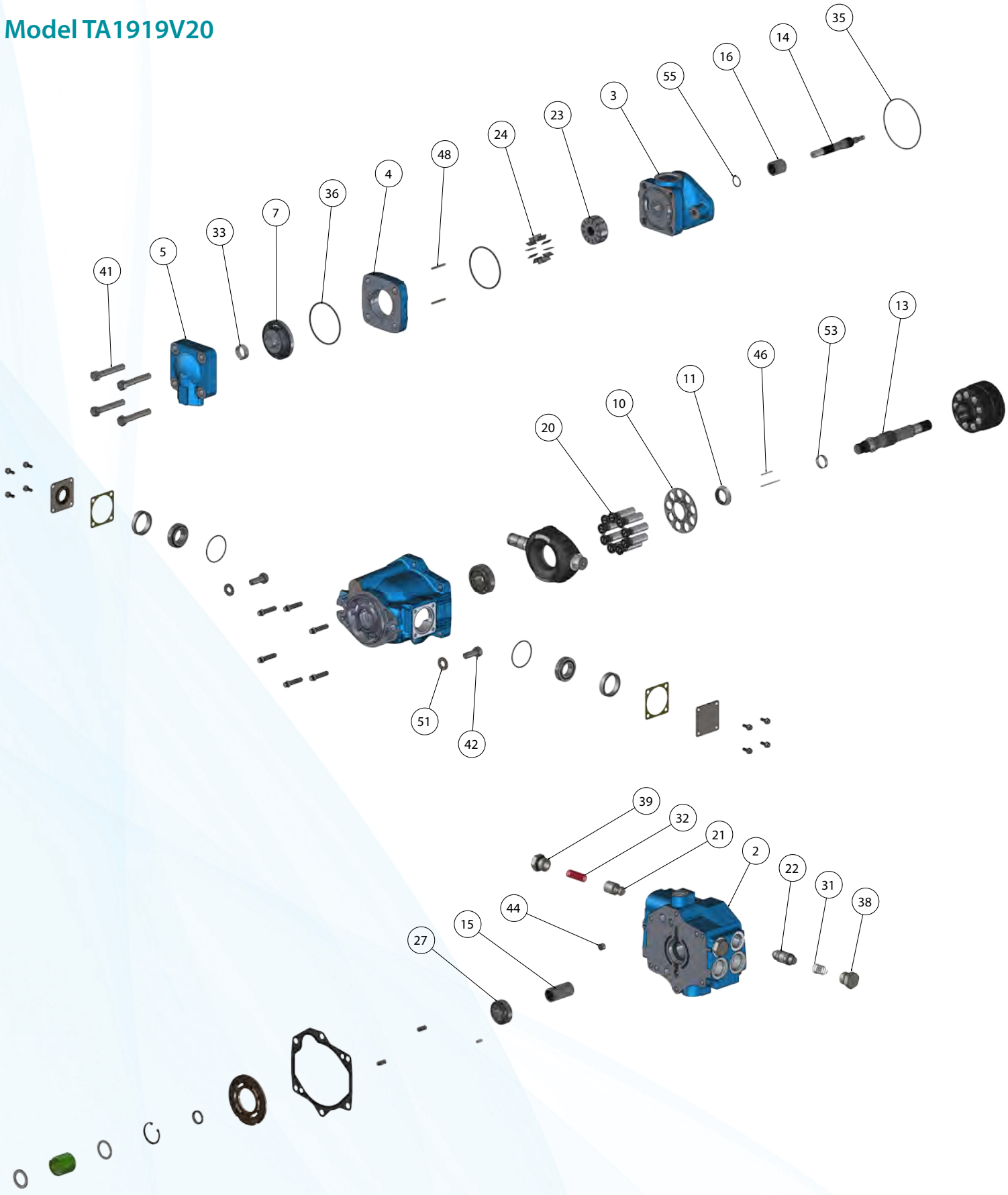
13 Design Number

Model TA19V20

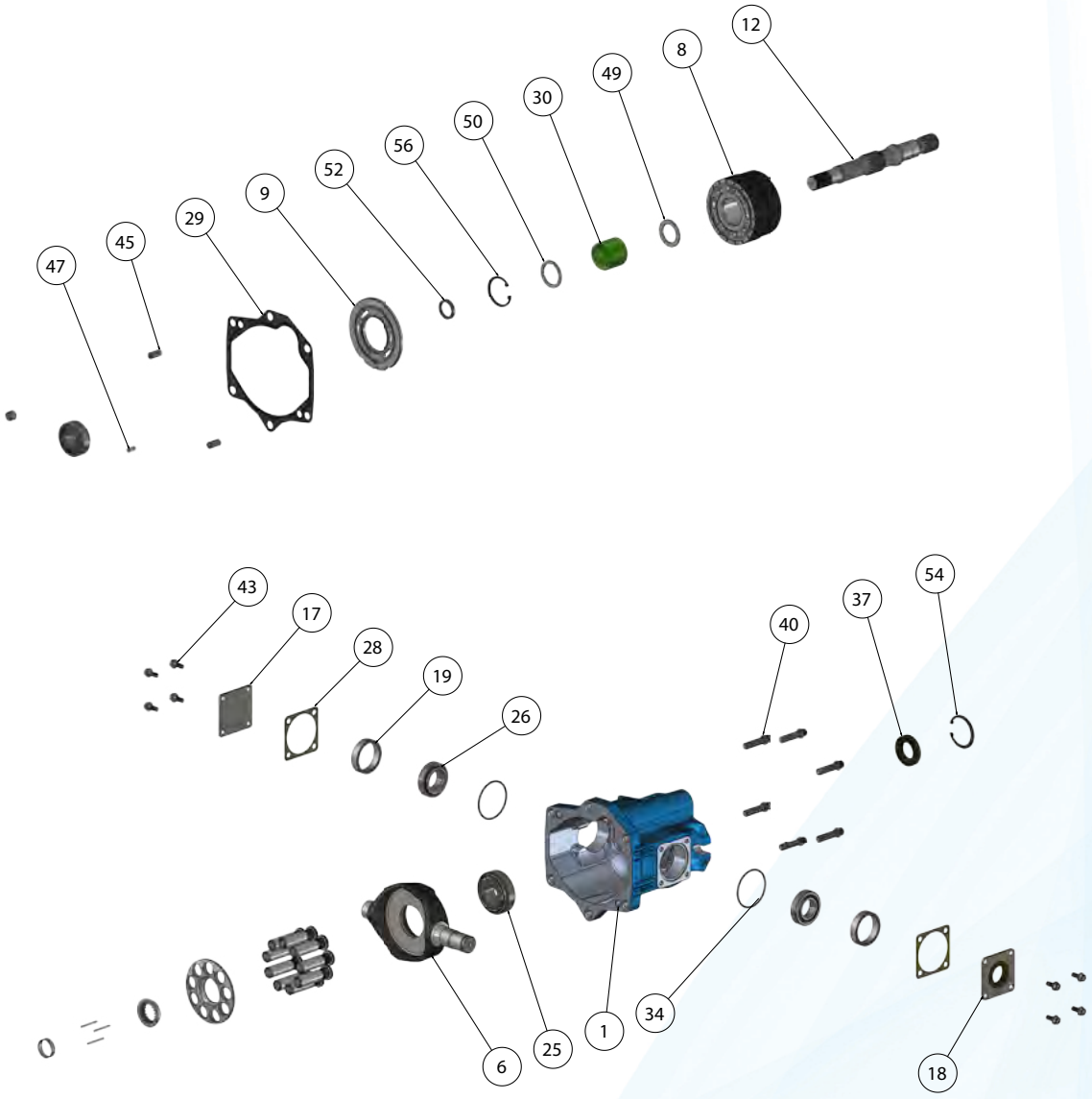




Model TA1919V20



Model TA1919V20



Model TA1919V20

ITEM	PART NUMBER Panagon	PART NUMBER OEM	QTY	NOTE	DESCRIPTION
1	PS9486	422309	2		Housing
2	PS10081	422303	1		Valve Block
3	PS11529	417716	1		Adapter Body
4	SEE TABLE 1		1		Rotor Ring
5	PS1123	293373	1		End Cover
6	PS1203	416636	2		Yoke
7	PS1152	359287	1		Pressure Plate S/A
8	PS1866	426836	2	C	Cylinder block
9	PS116339	424481	2		Control Plate
10	PS1301	402650	2	C	Shoe Plate
11	PS1300	402580	2	C	Spherical Washer
12	SEE TABLE 2		1		Drive Shaft
13	PS1886	423417	1		Intermediate Shaft
14	PS1882	420686	1		Top Shaft
15	PS7371	416650	1		Coupler
16	PS1649	416661	1		Coupler
17	PS7568	416637	2		Pintle Cover
18	PS122323	416638	2		Pintle Cover Open
19	PS10082	410053	4		Pintle Spacer
20	PS1310	923939	18	C	Piston / Shoe S/A
21	PS7569	416645	1		Poppet
22	PS10085	942429	4		Relief Valve
23	SEE TABLE 1		1		Rotor
24	SEE TABLE 1		12		Vanes
25	PS1335	419627	2		Bearing S/A
26	PS1337	417381	4		Bearing S/A
27	PS1834	473914	2		Bearing S/A
28	PS1997	923938	4		Pintle Gasket / Shims
29	PS1417	423617	2	A	Gasket
30	PS1920	424526	2	C	Spring
31	PS10078	416602	4		Spring
32	PS9604	424525	1		Spring
33	PS6344	028422	1		Spring
34	PS135297	174140	4	A	“O”-Ring
35	PS135428	375422	1	A	“O”-Ring
36	SEE TABLE 1		2	A	“O”-Ring
37	PS136810	471965	1	A	Shaft Seal
38	PS10077	317697	4		SAE #12 Plug
39	PS-576228	416599	1		SAE #12 Plug Special
40	PS2454	427171	12	B	Torx Bolt, 3/8-16
41	SEE TABLE 1		4		Hex Head Bolt, 1/2-13
42	PS	119740	2		Hex Head Bolt, 1/2-13
43	PS8100	427172	16		Washer Hex Head Bolt, 1/4-20
44	PS3221	007075	3		NPT Plug, 1/4-18
45	PS10080	429325	4		Roll Pin
46	PS189	393841	6	C	Pin
47	PS10079	248910	2		Pin
48	SEE TABLE 1		2		Pin
49	PS1923	404932	2	C	Spring Guide, Inner
50	PS1925	423368	2	C	Spring Guide, Outer
51	PS10083	427700	2		Washer
52		4992184-xxx	2		Shaft Spacer
53	PS1928	410050	2	C	Pin Retainer
54	PS1956	102038	1		Retaining Ring
55	PS1916	123785	1		Retaining Ring
56	PS7146	087541	2	C	Retaining Ring

A Included in PS1852 / 920171Seal Kit

B Use Torx Socket #E-12 to remove screws

C Included in PS1942 / 923936 Rotating Group

Model TA1919V20

Table 1 - Cartridge and Vane														
Model Code	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM	Panagon	OEM
Model	Cartridge Kit		**ALL PARTS SERVICED IN CARTRIDGE KIT**								Pin		Screw	
			Ring		Rotor		Vane Kit		"O"-Ring (A)					
T*V20*-**7*-****11/12	PS6893	923481	PS854	328152	PS6359	358330	PS6363	923493	PS135843	154090	PS1741	002478	PS6384	131486
T*V20*-**8*-****11/12	PS6894	923483	PS851	331791										
T*V20*-**9*-****11/12	PS6895	923484	PS853	331789										
T*V20*-**10*-****11/12	PS7139	923620	PS1153	374309	PS104268	358332	PS6364	923478			PS1809	016662		
T*V20*-**11*-****11/12	PS6896	923482	PS856	328156										
T*V20*-**12*-****11/12	PS6897	923486	PS855	331806	PS104267	358334	PS6365	923479			PS79841	009603	PS6385	001319
T*V20*-**13*-****11/12	PS6898	923487	PS850	331807										

Table 2 - Shaft and Key				
Model Code	Panagon	OEM	Panagon	OEM
Model	Shaft		Key	
TA1919V20**-2	PS1883	423416	--	--
TA1919V20**-12	PS1884	426443	PS81596	235252
TA1919V20**-13	PS1885	435296	PS83504	398082

Model TA1919V20

T A 1 9 1 9 V 2 0 F L - 2 A R - 0 7 A D 6 H 2 1
1 2 3 4 5 6 7 8 9 10 11 12 13

1 Double Transmission Pump
Rated at 72 I/min (19 USgpm) at 1800 rpm

2 Auxiliary Vane Pump

3 Vane Pump Cover Option (Omit If Not Required)
- F Flow control
- P Priority flow

4 Rotation Viewed From Shaft End
- R Right hand (Clockwise)
- L Left hand (Counter clockwise)

5 Input Shaft
- 2 SAE B-B splined

6 Control Pintle Location Viewed From Shaft End With Drain Port Up

Pump No.1
- A Right hand side
- B Left hand side
- C Right hand side
- D Left hand side

Pump No.2
- A Right hand side
- B Right hand side
- C Left hand side
- D Left hand side

7 Main Relief Valve
- R Relief valve
- O No relief valve

8 Vane Pump Ring Capacity at 1200 rpm
- 07 26 I/min (7 USgpm)
- 08 30 I/min (8 USgpm)
- 09 34 I/min (9 USgpm)
- 10 37 I/min (10 USgpm)
- 11 41 I/min (11 USgpm)
- 12 45 I/min (12 USgpm)
- 13 49 I/min (13 USgpm)

9 Vane Pump Inlet Position Viewed From Cover End
- A Inline with case drain
- C 180° F opposite case drain

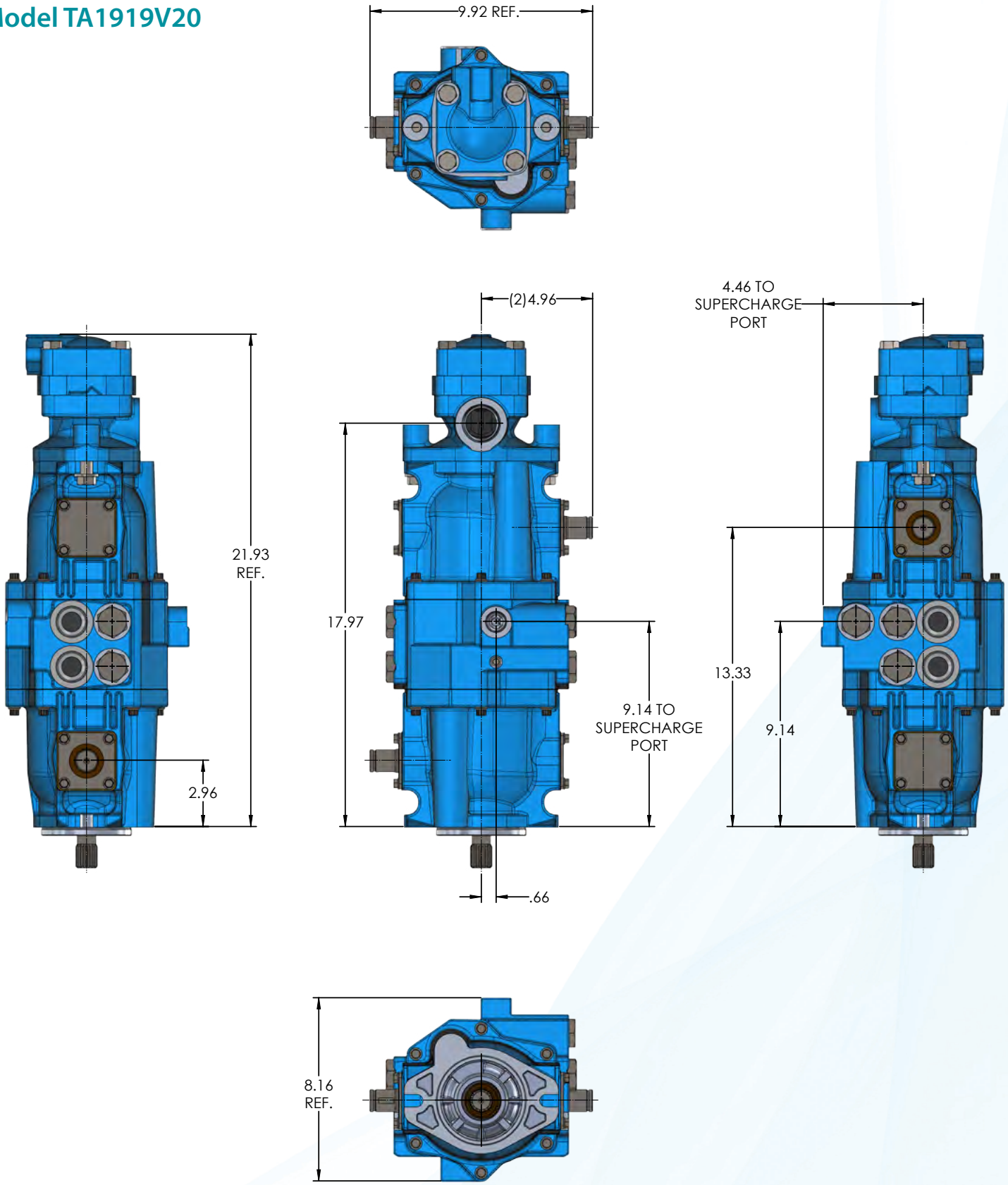
10 Position Of Vane Pump Outlet, Or Primary Outlet, Viewed From Cover End.
- A Opposite inlet
- B 90° F counterclockwise from inlet
- C In line with inlet
- D 90° F clockwise from inlet

11 Flow Rate Through Orifice In "F" Cover
2, 4, 6, 8 or 10 USgpm
Flow Rate Through Orifice In "P" Cover
2, 2.5, 3, 4, 6 or 8 USgpm

12 Vane Pump Relief Valve Setting, "F" & "P" Cover
- A 17 bar (250 psi)
- B 35 bar (500 psi)
- C 51 bar (750 psi)
- D 70 bar (1000 psi)
- E 86 bar (1250 psi)
- F 100 bar (1500 psi)
- G 120 bar (1750 psi)
- H 140 bar (2000 psi)
- J 155 bar (2250 psi)
- K 175 bar (2500 psi)

13 Design Number

Model TA1919V20



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