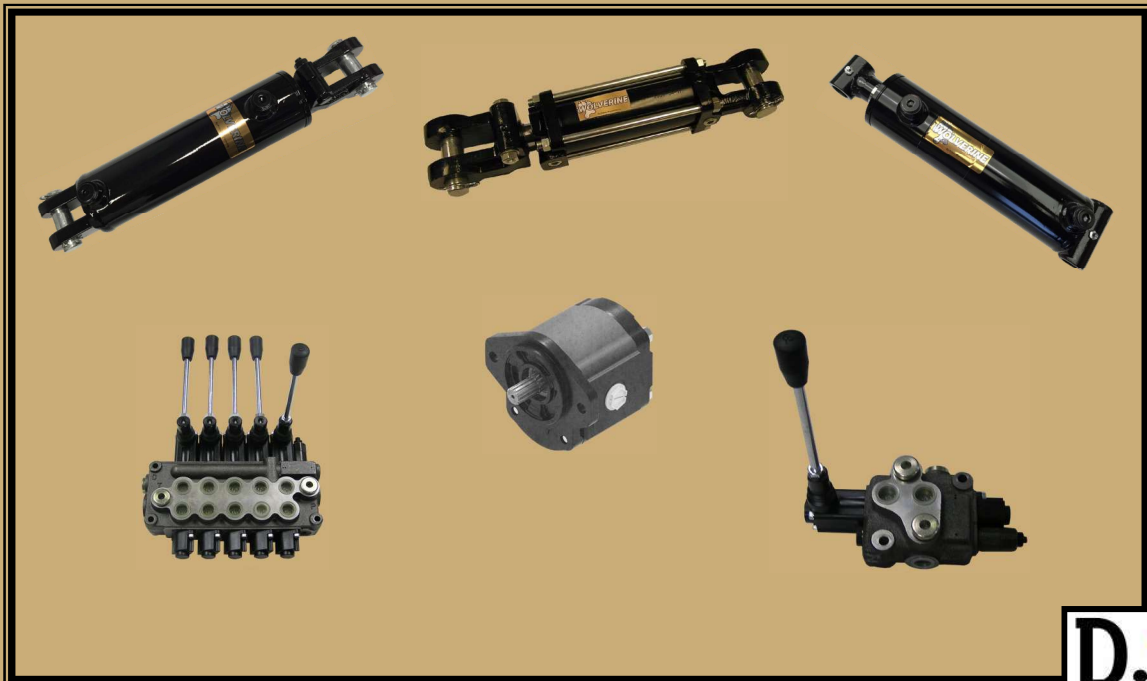


December 1, 2025

No Pricing



Cylinders, Valves, Pumps & Accessories





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Sales StaffInside Back Cover

QUALITY

Prince Manufacturing Corporation's Wolverine line is our globally-sourced brand of quality hydraulic components. Prince understands customers want choices so we introduced the Wolverine line of products to target a different segment of the market, resulting in more competitively priced products.

Product testing and evaluation is done at Prince's own R & D test lab before any new product is added to the Wolverine line. This has resulted in numerous product improvements that were implemented before the products were placed on our warehouse shelves.

This confirms these products meet their stated specifications and helps ensure consistent quality.



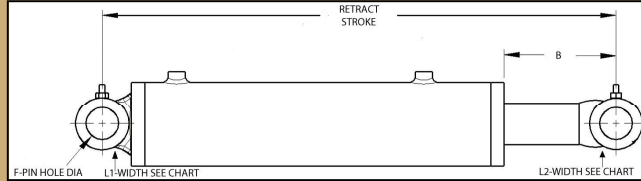
C Y L I N D E R S

3000 PSI Welded Cross Tube Cylinders



FEATURES:

- 100% tested for quality assurance
- Hard chrome rod plating for corrosion & wear resistance
- Cast steel end fittings for high strength & low cost
- Top port design
- SAE O-ring ports for reliable & leak-free connection
- Thread-in gland design for serviceability
- Grease zerks included for extended pin life
- High luster black paint for protection from the elements
- Individually bagged & boxed for secure storage & transport



MODEL	BORE	PORTS	CROSS TUBE WIDTH		B	F
			L1-BASE END	L2-ROD END		
WWXT1500-S	1.5	SAE 4	2.25	2.00	2.62	3/4
WWXT2000-S	2.0	SAE 6	2.75	2.25	2.25	1
WWXT2500-S	2.5	SAE 8	3.25	2.25	2.25	1
WWXT3000-S	3.0	SAE 8	3.75	2.25	2.25	1
WWXT3500-S	3.5	SAE 8	4.25	2.25	4.00	1.25
WWXT4000-S	4.0	SAE 8	4.75	2.50	3.75	1.50

MODEL	BORE x STROKE			RETRACT	ROD DIA.	COLUMN LOAD RATINGS	WT/LBS
WWXT1504-S	1.5	X	4	12	1	FULL PSI	8
WWXT1506-S	1.5	X	6	14	1	FULL PSI	9
WWXT1508-S	1.5	X	8	16	1	FULL PSI	10
WWXT1512-S	1.5	X	12	20	1	FULL PSI	13
WWXT1516-S	1.5	X	16	24	1	FULL PSI	15
WWXT2004-S	2	X	4	12	1.25	FULL PSI	12
WWXT2006-S	2	X	6	14	1.25	FULL PSI	13
WWXT2008-S	2	X	8	16	1.25	FULL PSI	15
WWXT2010-S	2	X	10	18	1.25	FULL PSI	17
WWXT2012-S	2	X	12	20	1.25	FULL PSI	19
WWXT2014-S	2	X	14	22	1.25	FULL PSI	20
WWXT2016-S	2	X	16	24	1.25	FULL PSI	22
WWXT2018-S	2	X	18	26	1.25	FULL PSI	24
WWXT2020-S	2	X	20	28	1.25	FULL PSI	25
WWXT2024-S	2	X	24	32	1.25	7300 (2330 PSI)*	29
WWXT2030-S	2	X	30	38	1.25	4900 (1560 PSI)*	34
WWXT2036-S	2	X	36	44	1.25	3500 (1120 PSI)*	39
WWXT2504-S	2.5	X	4	12	1.50	FULL PSI	16
WWXT2506-S	2.5	X	6	14	1.50	FULL PSI	18
WWXT2508-S	2.5	X	8	16	1.50	FULL PSI	20
WWXT2510-S	2.5	X	10	18	1.50	FULL PSI	22
WWXT2512-S	2.5	X	12	20	1.50	FULL PSI	25
WWXT2516-S	2.5	X	16	24	1.50	FULL PSI	29
WWXT2518-S	2.5	X	18	26	1.50	FULL PSI	31
WWXT2520-S	2.5	X	20	28	1.50	FULL PSI	34
WWXT2524-S	2.5	X	24	32	1.50	FULL PSI	38
WWXT2530-S	2.5	X	30	38	1.50	10300 (2100 PSI)*	45
† WWXT2536-S	2.5	X	36	44	1.50	7400 (1510 PSI)*	51

*THESE MODELS HAVE A COLUMN LOAD RESTRICTION THAT LIMITS THE MAXIMUM PUSH LOAD THAT THE CYLINDER CAN SAFELY BE OPERATED AT.

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.



C Y L I N D E R S

3000 PSI Welded Cross Tube Cylinders

MODEL	BORE x STROKE			RETRACT	ROD DIA.	COLUMN LOAD RATINGS	WT/LBS
WWXT3004-S	3	X	4	12	1.5	FULL PSI	19
WWXT3006-S	3	X	6	14	1.5	FULL PSI	22
WWXT3008-S	3	X	8	16	1.5	FULL PSI	24
WWXT3010-S	3	X	10	18	1.5	FULL PSI	27
WWXT3012-S	3	X	12	20	1.5	FULL PSI	29
WWXT3014-S	3	X	14	22	1.5	FULL PSI	32
WWXT3016-S	3	X	16	24	1.5	FULL PSI	34
WWXT3018-S	3	X	18	26	1.5	FULL PSI	36
WWXT3020-S	3	X	20	28	1.5	20700 (2930 PSI)*	39
WWXT3024-S	3	X	24	32	1.5	15200 (2150 PSI)*	44
WWXT3030-S	3	X	30	38	1.5	10300 (1460 PSI)*	51
WWXT3032-S	3	X	32	40	1.5	9200 (1300 PSI)*	54
WWXT3036-S	3	X	36	44	1.5	7400 (1050 PSI)*	59
† WWXT3042-S	3	X	42	50	1.5	5675 (800 PSI)	65
† WWXT3048-S	3	X	48	56	1.5	4400 (620 PSI)*	73
† WWXT3508-S	3.5	X	8	18	1.75	FULL PSI	33
† WWXT3510-S	3.5	X	10	20	1.75	FULL PSI	36
† WWXT3512-S	3.5	X	12	22	1.75	FULL PSI	39
† WWXT3516-S	3.5	X	16	26	1.75	FULL PSI	45
WWXT3518-S	3.5	X	18	28	1.75	FULL PSI	48
WWXT3524-S	3.5	X	24	34	1.75	26200 (2730 PSI)*	57
† WWXT3530-S	3.5	X	30	40	1.75	20200 (2100 PSI)	67
† WWXT3532-S	3.5	X	32	42	1.75	16100 (1670 PSI)*	70
† WWXT3536-S	3.5	X	36	46	1.75	13100 (1360 PSI)*	76
† WWXT3540-S	3.5	X	40	50	1.75	10900 (1130 PSI)*	82
† WWXT3548-S	3.5	X	48	58	1.75	7800 (810 PSI)*	94
† WWXT4010-S	4	X	10	20	2	FULL PSI	45
WWXT4012-S	4	X	12	22	2	FULL PSI	49
† WWXT4014-S	4	X	14	24	2	FULL PSI	52
WWXT4016-S	4	X	16	26	2	FULL PSI	56
WWXT4018-S	4	X	18	28	2	FULL PSI	60
WWXT4020-S	4	X	20	30	2	FULL PSI	63
WWXT4024-S	4	X	24	34	2	37200 (2960 PSI)*	71
† WWXT4030-S	4	X	30	40	2	24900 (1980 PSI)*	82
† WWXT4032-S	4	X	32	42	2	22400 (1780 PSI)*	85
† WWXT4036-S	4	X	36	46	2	18100 (1440 PSI)*	93
† WWXT4040-S	4	X	40	50	2	14600 (1160 PSI)*	100
† WWXT4042-S	4	X	42	52	2	13500 (1350 PSI)	104
WWXT4048-S	4	X	48	58	2	10600 (840 PSI)*	115

*THESE MODELS HAVE A COLUMN LOAD RESTRICTION THAT LIMITS THE MAXIMUM PUSH LOAD THAT THE CYLINDER CAN SAFELY BE OPERATED AT.

UNIVERSAL SEAL KITS	
PART NO.	DESCRIPTION
PMCK-WW1500	1.5 BORE
PMCK-WW2000	2 BORE
PMCK-WW2500	2.5 BORE
PMCK-WW3000	3 BORE
PMCK-WW3500	3.5 BORE
PMCK-WW4000	4 BORE

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.



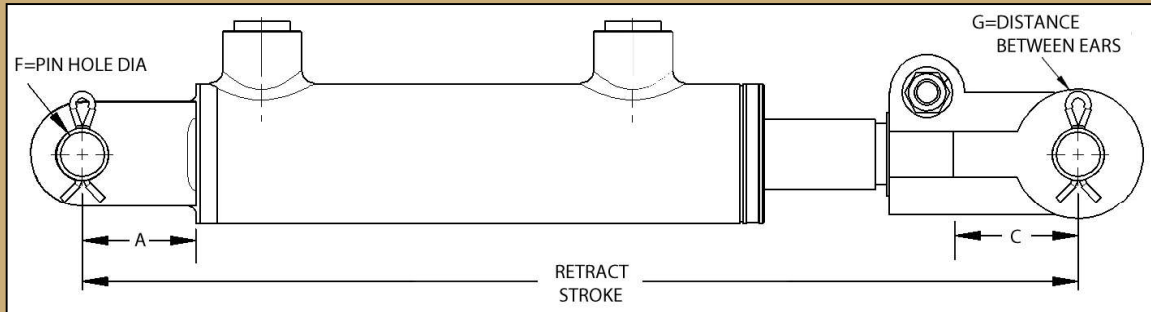
C Y L I N D E R S

3000 PSI Welded Adjustable Clevis Cylinders



FEATURES:

- 100% tested for quality assurance
- Hard chrome rod plating for corrosion & wear resistance
- Cast steel end fittings for high strength & low cost
- Top port design
- SAE O-ring ports for reliable & leak-free connection
- Spin on rod clevis
- Thread-in gland design for serviceability
- High luster black paint for protection from the elements
- Individually bagged & boxed for secure storage & transport



MODEL	BORE	PORTS	A	C	F	G
WWCL1500-S	1.5	SAE 6	1.63	1.62	0.75	0.88
WWCL2000-S	2.0	SAE 8	2.13	2.12	1.00	1.13
WWCL2500-S	2.5	SAE 8	2.13	2.13	1.00	1.13
WWCL3000-S	3.0	SAE 8	1.88	2.13	1.00	1.13
WWCL3500-S	3.5	SAE 8	1.88	2.13	1.00	1.13
WWCL4000-S	4.0	SAE 8	1.75	2.13	1.00	1.13

MODEL	BORE x STROKE			RETRACT	ROD DIA.	COLUMN LOAD RATINGS	WT/LBS
WWCL1504-S	1.5	X	4	14.25	1	FULL PSI	10
WWCL1506-S	1.5	X	6	16.25	1	FULL PSI	11
WWCL1508-S	1.5	X	8	18.25	1	FULL PSI	12
WWCL1508-ASAE	1.5	X	8	20.25	1	FULL PSI	13
WWCL1510-S	1.5	X	10	20.25	1	FULL PSI	13
WWCL1512-S	1.5	X	12	22.25	1	FULL PSI	15
WWCL1516-S	1.5	X	16	26.25	1	FULL PSI	17
WWCL1518-S	1.5	X	18	28.25	1	4800 (2720 PSI)*	18

WWCL2004-S	2	X	4	14.25	1.13	FULL PSI	16
WWCL2006-S	2	X	6	16.25	1.13	FULL PSI	17
WWCL2008-S	2	X	8	18.25	1.13	FULL PSI	19
WWCL2008-ASAE	2	X	8	20.25	1.13	FULL PSI	20
WWCL2010-S	2	X	10	20.25	1.13	FULL PSI	20
WWCL2012-S	2	X	12	22.25	1.13	FULL PSI	22
† WWCL2014-S	2	X	14	24.25	1.13	FULL PSI	24
WWCL2016-S	2	X	16	26.25	1.13	FULL PSI	25
WWCL2018-S	2	X	18	28.25	1.13	FULL PSI	27
WWCL2020-S	2	X	20	30.25	1.13	9100 (2900 PSI)*	28
WWCL2024-S	2	X	24	34.25	1.13	6700 (2130 PSI)*	31
WWCL2030-S	2	X	30	40.25	1.13	4600 (1470 PSI)*	36
WWCL2036-S	2	X	36	46.25	1.13	3400 (1080 PSI)*	41

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.



C Y L I N D E R S

3000 PSI Welded Adjustable Clevis Cylinders

MODEL	BORE x STROKE		RETRACT	ROD DIA.	COLUMN LOAD RATINGS	WT/LBS
† WWCL2504-S	2.5	X 4	14.25	1.25	FULL PSI	19
WWCL2506-S	2.5	X 6	16.25	1.25	FULL PSI	21
WWCL2508-S	2.5	X 8	18.25	1.25	FULL PSI	23
WWCL2508-ASAE	2.5	X 8	20.25	1.25	FULL PSI	24
WWCL2510-S	2.5	X 10	20.25	1.25	FULL PSI	24
WWCL2512-S	2.5	X 12	22.25	1.25	FULL PSI	26
† WWCL2514-S	2.5	X 14	24.25	1.25	FULL PSI	28
WWCL2516-S	2.5	X 16	26.25	1.25	FULL PSI	30
† WWCL2518-S	2.5	X 18	28.25	1.25	FULL PSI	32
WWCL2520-S	2.5	X 20	30.25	1.25	FULL PSI	34
† WWCL2524-S	2.5	X 24	34.25	1.25	14000 (2850 PSI)*	38
† WWCL2530-S	2.5	X 30	40.25	1.25	9600 (1960 PSI)*	44
† WWCL2536-S	2.5	X 36	46.25	1.25	7000 (1430 PSI)*	49
† WWCL2548-S	2.5	X 48	58.25	1.25	3500 (710 PSI)*	50
WWCL3004-S	3	X 4	14.25	1.5	FULL PSI	24
WWCL3006-S	3	X 6	16.25	1.5	FULL PSI	26
WWCL3008-S	3	X 8	18.25	1.5	FULL PSI	29
WWCL3008-ASAE	3	X 8	20.25	1.5	FULL PSI	31
WWCL3010-S	3	X 10	20.25	1.5	FULL PSI	31
† WWCL3012-S	3	X 12	22.25	1.5	FULL PSI	34
WWCL3014-S	3	X 14	24.25	1.5	FULL PSI	36
WWCL3016-S	3	X 16	26.25	1.5	FULL PSI	39
† WWCL3018-S	3	X 18	28.25	1.5	FULL PSI	41
WWCL3020-S	3	X 20	30.25	1.5	18800 (2660 PSI)*	43
† WWCL3024-S	3	X 24	34.25	1.5	14000 (1980 PSI)*	48
† WWCL3030-S	3	X 30	40.25	1.5	9600 (1360 PSI)*	56
† WWCL3036-S	3	X 36	46.25	1.5	7000 (990 PSI)*	63
WWCL3504-S	3.5	X 4	14.25	1.75	FULL PSI	29
† WWCL3506-S	3.5	X 6	16.25	1.75	FULL PSI	32
† WWCL3508-S	3.5	X 8	18.25	1.75	FULL PSI	35
† WWCL3508-ASAE	3.5	X 8	20.25	1.75	FULL PSI	38
† WWCL3510-S	3.5	X 10	20.25	1.75	FULL PSI	38
† WWCL3512-S	3.5	X 12	22.25	1.75	FULL PSI	41
† WWCL3514-S	3.5	X 14	24.25	1.75	FULL PSI	44
† WWCL3516-S	3.5	X 16	26.25	1.75	FULL PSI	47
† WWCL3518-S	3.5	X 18	28.25	1.75	FULL PSI	50
† WWCL3520-S	3.5	X 20	30.25	1.75	FULL PSI	53
WWCL3524-S	3.5	X 24	34.25	1.75	26000 (2700 PSI)*	59
† WWCL3530-S	3.5	X 30	40.25	1.75	17900 (1860 PSI)*	68
† WWCL3536-S	3.5	X 36	46.25	1.75	13000 (1350 PSI)*	78
WWCL4004-S	4	X 4	14.25	2	FULL PSI	35
† WWCL4006-S	4	X 6	16.25	2	FULL PSI	38
† WWCL4008-S	4	X 8	18.25	2	FULL PSI	42
WWCL4008-ASAE	4	X 8	20.25	2	FULL PSI	46
WWCL4010-S	4	X 10	20.25	2	FULL PSI	46
WWCL4012-S	4	X 12	22.25	2	FULL PSI	49
† WWCL4014-S	4	X 14	24.25	2	FULL PSI	53
WWCL4016-S	4	X 16	26.25	2	FULL PSI	57
WWCL4018-S	4	X 18	28.25	2	FULL PSI	60
† WWCL4020-S	4	X 20	30.25	2	FULL PSI	64
WWCL4024-S	4	X 24	34.25	2	FULL PSI	71
† WWCL4030-S	4	X 30	40.25	2	25200 (2010 PSI)*	83
† WWCL4036-S	4	X 36	46.25	2	18200 (1450 PSI)*	94

*THESE MODELS HAVE A COLUMN LOAD RESTRICTION THAT LIMITS THE MAXIMUM PUSH LOAD THAT THE CYLINDER CAN SAFELY BE OPERATED AT.

UNIVERSAL SEAL KITS

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
PMCK-WW1500	1.5 BORE	PMCK-WW3000	3 BORE
PMCK-WW2000	2 BORE	PMCK-WW3500	3.5 BORE
PMCK-WW2500	2.5 BORE	PMCK-WW4000	4 BORE

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

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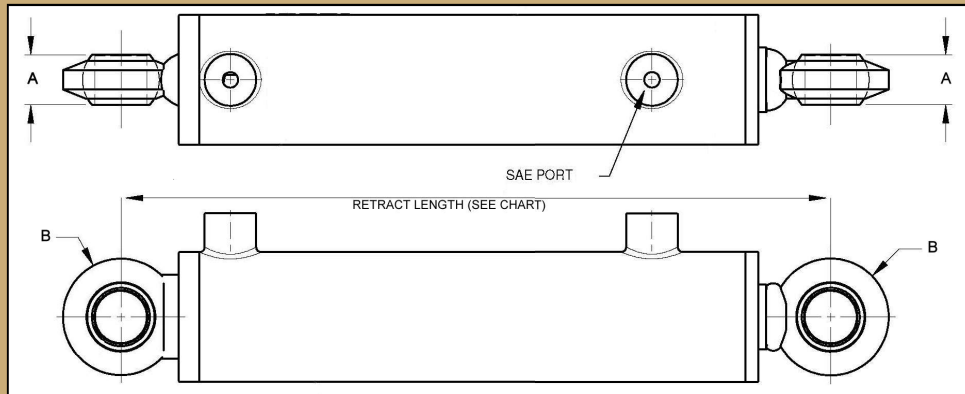
C Y L I N D E R S

3000 PSI Welded Swivel Ball End Cylinders



FEATURES:

- 100% tested for quality assurance
- Hard chrome rod plating for corrosion & wear resistance
- Cast steel end fittings for high strength & low cost
- Top port design
- SAE O-ring ports for reliable & leak-free connection
- Thread-in gland design for serviceability
- High luster black paint for protection from the elements
- Individually bagged & boxed for secure storage & transport
- Spherical End Fittings



MODEL	(A) SWIVEL WIDTH	(B) SWIVEL DIAMETER
WWSB1000-S	1.0"	2.0"
WWSB1500-S	1.0"	2.0"
WWSB2000-S	1.0"	2.25"
WWSB2500-S	1.0"	2.25"
WWSB3000-S	1.75"	3.13"

MODEL	BORE x STROKE	RETRACT	ROD DIA.	COLUMN LOAD RATINGS (PSI)	PORTS	PIN HOLE	WT/LBS
WWSB1004-S	1 X 4	10	0.625	FULL PSI	#6 SAE	0.5	5
WWSB1006-S	1 X 6	12	0.625	FULL PSI	#6 SAE	0.5	5
WWSB1008-S	1 X 8	14	0.625	FULL PSI	#6 SAE	0.5	6
WWSB1010-S	1 X 10	16	0.625	FULL PSI	#6 SAE	0.5	7
WWSB1012-S	1 X 12	18	0.625	2200 (2800 PSI)*	#6 SAE	0.5	7

WWSB1504-S	1.5 X 4	11.25	1	FULL PSI	#6 SAE	0.77	6
WWSB1506-S	1.5 X 6	13.25	1	FULL PSI	#6 SAE	0.77	7
WWSB1508-S	1.5 X 8	15.25	1	FULL PSI	#6 SAE	0.77	9
WWSB1510-S	1.5 X 10	17.25	1	FULL PSI	#6 SAE	0.77	10
WWSB1512-S	1.5 X 12	19.25	1	FULL PSI	#6 SAE	0.77	11
WWSB1516-S	1.5 X 16	23.25	1	FULL PSI	#6 SAE	0.77	13

WWSB2006-S	2 X 6	13.5	1.25	FULL PSI	#8 SAE	1.01	15
WWSB2008-S	2 X 8	15.5	1.25	FULL PSI	#8 SAE	1.01	16
WWSB2010-S	2 X 10	17.5	1.25	FULL PSI	#8 SAE	1.01	17
WWSB2012-S	2 X 12	19.5	1.25	FULL PSI	#8 SAE	1.01	19
WWSB2016-S	2 X 16	23.5	1.25	FULL PSI	#8 SAE	1.01	22
WWSB2024-S	2 X 24	31.5	1.25	FULL PSI	#8 SAE	1.01	27
WWSB2030-S	2 X 30	37.5	1.25	6300 (2000 PSI)*	#8 SAE	1.01	32

*THESE MODELS HAVE A COLUMN LOAD RESTRICTION THAT LIMITS THE MAXIMUM PUSH LOAD THAT THE CYLINDER CAN SAFELY BE OPERATED AT.



C Y L I N D E R S

3000 PSI Welded Swivel Ball End Cylinders

MODEL	BORE x STROKE	RETRACT	ROD DIA.	COLUMN LOAD RATINGS (PSI)	PORTS	PIN HOLE	WT/LBS
WWSB2506-S	2.5 X 6	13.5	1.5	FULL PSI	#8 SAE	1.01	17
WWSB2508-S	2.5 X 8	15.5	1.5	FULL PSI	#8 SAE	1.01	19
WWSB2510-S	2.5 X 10	17.5	1.5	FULL PSI	#8 SAE	1.01	21
WWSB2512-S	2.5 X 12	19.5	1.5	FULL PSI	#8 SAE	1.01	23
WWSB2524-S	2.5 X 24	31.5	1.5	FULL PSI	#8 SAE	1.01	34

WWSB3006-S	3 X 6	14.25	1.5	FULL PSI	#8 SAE	1.01	20
WWSB3008-S	3 X 8	16.25	1.5	FULL PSI	#8 SAE	1.01	22
† WWSB3010-S	3 X 10	18.25	1.5	FULL PSI	#8 SAE	1.01	24
WWSB3012-S	3 X 12	20.25	1.5	FULL PSI	#8 SAE	1.01	26
WWSB3016-S	3 X 16	24.25	1.5	FULL PSI	#8 SAE	1.01	31
WWSB3020-S	3 X 20	28.25	1.5	FULL PSI	#8 SAE	1.01	36
† WWSB3024-S	3 X 24	32.25	1.5	19500 (2750 PSI)*	#8 SAE	1.01	41

*THESE MODELS HAVE A COLUMN LOAD RESTRICTION THAT LIMITS THE MAXIMUM PUSH LOAD THAT THE CYLINDER CAN SAFELY BE OPERATED AT.

UNIVERSAL SEAL KITS

PART NO.	DESCRIPTION
PMCK-WW1500	1.5 BORE
PMCK-WW2000	2 BORE
PMCK-WW2500	2.5 BORE
PMCK-WW3000	3 BORE

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.



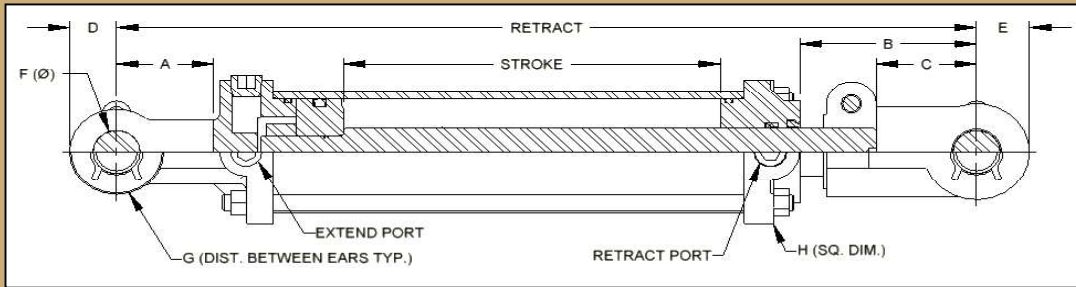
C Y L I N D E R S

2500 PSI Tie-Rod Cylinders



FEATURES:

- Steel rod clevis & base clevis
- 100% tested
- Clevis meets ASAE specs
- Individually bagged & boxed
- Side port configuration
- SAE O-ring ports for reliable & leak-free connection



MODEL	BORE	EXT PORT SAE	RET PORT SAE	A	B	C	D	E	F	G	H
W200000-S	2.0	#6	#6	2.00	3.75	2.13	.97	1.03	1.00	1.13	2.82
W250000-S	2.5	#6	#6	2.00	3.75	2.13	.97	1.13	1.00	1.13	3.38
W300000-S	3.0	#8	#8	2.00	3.75	2.13	1.00	1.13	1.00	1.13	3.90
W350000-S	3.5	#8	#8	2.00	3.75	2.13	1.13	1.13	1.00	1.13	4.62
W400000-S	4.0	#8	#8	2.00	3.75	2.13	1.13	1.25	1.00	1.13	4.75

MODEL	BORE x STROKE		RETRACT	ROD DIAMETER	COLUMN LOAD (LBS)/PSI*	WT
W200040-S	2	X 4	14.25	1.125	FULL PSI	16
W200060-S	2	X 6	16.25	1.125	FULL PSI	17
W200080-S	2	X 8	18.25	1.125	FULL PSI	17
W200080-S	2	X 8	20.25	1.125	FULL PSI	18
W200100-S	2	X 10	20.25	1.125	FULL PSI	20
W200120-S	2	X 12	22.25	1.125	FULL PSI	21
W200160-S	2	X 16	26.25	1.125	FULL PSI	23
W200160-S	2	X 16	31.50	1.125	7,400 LB / 2,350 PSI*	24
W200180-S	2	X 18	28.25	1.125	7,850 LB / 2,490 PSI*	24
W200200-S	2	X 20	30.25	1.125	7,500 LB / 2,390 PSI*	25
W200240-S	2	X 24	34.25	1.125	5,500 LB / 1,770 PSI*	27
W200300-S	2	X 30	40.25	1.125	3,800 LB / 1,220 PSI*	35
W200360-S	2	X 36	46.25	1.125	2,750 LB / 875 PSI*	40
W250040-S	2.5	X 4	14.25	1.125	FULL PSI	18
W250060-S	2.5	X 6	16.25	1.125	FULL PSI	19
W250080-S	2.5	X 8	18.25	1.125	FULL PSI	20
W250080-S	2.5	X 8	20.25	1.125	FULL PSI	21
W250100-S	2.5	X 10	20.25	1.125	FULL PSI	22
W250120-S	2.5	X 12	22.25	1.125	FULL PSI	24
W250140-S	2.5	X 14	24.25	1.125	FULL PSI	25
W250160-S	2.5	X 16	26.25	1.125	11,050 LB / 2,250 PSI*	27
W250180-S	2.5	X 18	28.25	1.250	FULL PSI	28
W250200-S	2.5	X 20	30.25	1.250	FULL PSI	30
W250240-S	2.5	X 24	34.25	1.250	8,650 LB / 1,760 PSI*	33
W250300-S	2.5	X 30	40.25	1.250	5,900 LB / 1,200 PSI*	45
W250360-S	2.5	X 36	46.25	1.250	4,300 LB / 875 PSI*	56
W250480-S	2.5	X 48	58.25	1.25	2,500 LB / 500 PSI*	68

* NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME. CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.



C Y L I N D E R S

2500 PSI Tie-Rod Cylinders

MODEL	BORE x STROKE			RETRACT	ROD DIAMETER	COLUMN LOAD (LBS)/PSI*	WT
W300040-S	3	X	4	14.25	1.25	FULL PSI	20
W300060-S	3	X	6	16.25	1.25	FULL PSI	25
W300080-S	3	X	8	18.25	1.25	FULL PSI	25
V300080-S	3	X	8	20.25	1.25	FULL PSI	25
W300100-S	3	X	10	20.25	1.25	FULL PSI	30
W300120-S	3	X	12	22.25	1.25	FULL PSI	28
W300140-S	3	X	14	24.25	1.25	FULL PSI	30
W300160-S	3	X	16	26.25	1.25	FULL PSI	33
V300160-S	3	X	16	31.50	1.5	FULL PSI	35
W300180-S	3	X	18	28.25	1.5	FULL PSI	35
W300200-S	3	X	20	30.25	1.5	FULL PSI	37
W300240-S	3	X	24	34.25	1.5	FULL PSI	42
W300300-S	3	X	30	40.25	1.5	12,150 LB / 1,720 PSI*	59
W300360-S	3	X	36	46.25	1.5	12,150 LB / 1,720 PSI*	63
† W350060-S	3.5	X	6	16.25	1.25	FULL PSI	25
† W350080-S	3.5	X	8	18.25	1.25	FULL PSI	27
V350080-S	3.5	X	8	20.25	1.25	FULL PSI	29
W350100-S	3.5	X	10	20.25	1.25	FULL PSI	30
W350120-S	3.5	X	12	22.25	1.25	FULL PSI	33
W350140-S	3.5	X	14	24.25	1.25	FULL PSI	35
W350160-S	3.5	X	16	26.25	1.25	17,000 LB / 1,760 PSI*	37
V350160-S	3.5	X	16	31.50	1.5	FULL PSI	39
W350180-S	3.5	X	18	28.25	1.25	14,000 LB / 1,450 PSI*	40
† W350200-S	3.5	X	20	30.25	1.5	FULL PSI	42
† W350240-S	3.5	X	24	34.25	1.5	18,000 LB / 1,870 PSI*	51
† W350300-S	3.5	X	30	40.25	1.5	12,000 / 1,250 PSI	65
† W350360-S	3.5	X	36	46.25	1.5	9,000 / 940 PSI	78
W400040-S	4.0	X	4	14.25	1.5	FULL PSI	30
† W400080-S	4.0	X	8	18.25	1.5	FULL PSI	34
V400080-S	4.0	X	8	20.25	1.5	FULL PSI	36
W400100-S	4.0	X	10	20.25	1.5	FULL PSI	37
W400120-S	4.0	X	12	22.25	1.5	FULL PSI	40
† W400140-S	4.0	X	14	24.25	1.5	FULL PSI	42
W400160-S	4.0	X	16	26.25	1.5	FULL PSI	48
V400160-S	4.0	X	16	31.50	2	FULL PSI	64
W400180-S	4.0	X	18	28.25	1.5	30,000 LB / 2,380 PSI*	51
† W400200-S	4.0	X	20	30.25	1.5	25,000 LB / 2,150	54
W400240-S	4.0	X	24	34.25	2	FULL PSI	70
† W400300-S	4.0	X	30	40.25	2	FULL PSI	87
W400360-S	4.0	X	36	46.25	2	27,000 LB / 2,150 PSI*	98

UNIVERSAL SEAL KITS

PART NO.	DESCRIPTION
PMCK-WW2000	2 BORE
PMCK-WW2500	2.5 BORE
PMCK-WW3000	3 BORE
PMCK-WW3500	3.5 BORE
PMCK-WW4000	4 BORE

* These models have a column load restriction that limits the maximum push load that the cylinder can safely operate at.

➤ NOTE: V models are built to ASAE retract dimensions.

The "B" dimension shown in the chart will be 2.00 inches longer for 8.0 inch stroke V models and will be 5.25 inches longer for 16.0 inch stroke V models. Also, Model V300160, V350160, & V400160 will have a 1.25 pin.

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.



V A L V E S

20 Gallon **H** Heavy Duty Sectional Valves

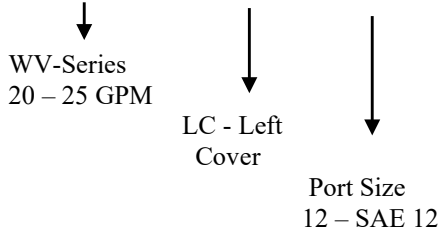


FEATURES:

- Replaces Parker/Gresen V20 & Prince Series 20 valves
- Circuit: Parallel/Open center/Closed center
- Capacity: 25 gpm nominal
- Max Operating Pressure: 3500 psi SAE ports only
- Max Tank Pressure: 500 psi
- Adjustable relief
- Seals are included with each work section
- Inlet/outlet #12 SAE port
- Work ports #10 SAE port
- Black Phosphate Coating

Inlet Sections

WV20 - LC - 12



Approximate Weight (Lbs.)			
Part	Inlet	Outlet	Work Section
WV20	7	4	10

Inlet Sections

PART NUMBER	DESCRIPTION	REPLACEMENT FOR GRESN		LIST PRICE
		MODEL NO.	PART NO.	
WV20-LC-12	INLET COVER BODY ONLY / PORT SIZE #12 SAE	20-LC-12	8650029	
WV20-WH-1700	SHIM ADJUSTABLE 1250-1749 SET @ 1700 PSI	WH-1700	8650418	
WV20-WH-1950	SHIM ADJUSTABLE 1750-1999 SET @ 1950 PSI	WH-1950	8650419	
WV20-WH-2550	SHIM ADJUSTABLE 2000-2599 SET @ 2550 PSI	WH-2550	8650420	
WV20-HRP51A-2000	ADJUSTABLE 500-3500 SET @ 2000 PSI	RP51A-2000	8650421	
WV20-HRP51A-3000	ADJUSTABLE 500-3500 SET @ 3000 PSI	RP51A-3000	8650421	
WV20-K-NR	NO RELIEF PLUG	K-20-NR	8650382	

Note: For complete inlet must order inlet body and main relief cartridge.

Work Sections

PART NUMBER	DESCRIPTION	REPLACEMENT FOR GRESN	LIST PRICE
WV20-10-03	3 WAY 3 POSITION SINGLE ACTING W/SPRING RETURN / #10 SAE WORK PORTS	20-10-03	
WV20-10-04	4 Way 3 POSITION DOUBLE ACTING W/SPRING RETURN / #10 SAE WORK PORTS	20-10-04	
WV20-10-D4	4 Way 3 POSITION W/3 POSITION DETENT / #10 SAE WORK PORTS	20-10-D4	
WV20-10-DF4	4 WAY 3 POSITION MOTOR SPOOL W/3 POSITION DETENT / #10 SAE WORK PORTS	20-10-DF4	
WV20-10-F4	4 WAY 3 POSITION FREE FLOW MOTOR W/SPRING RETURN / #10 SAE WORK PORTS	20-10-F4	

Note: O-rings for between sections included with ordering a work section.
 Note: Handles are NOT included with work sections, see page 12.

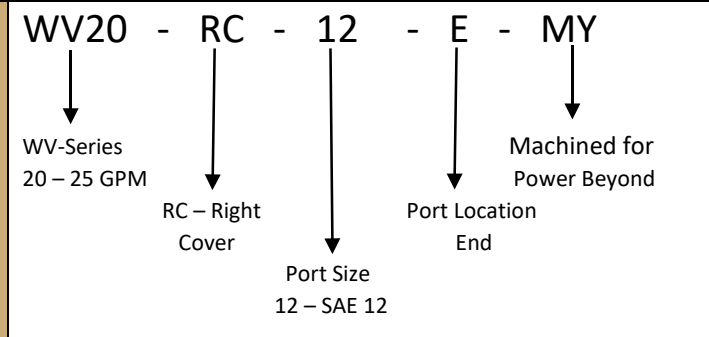


V A L V E S

Work Port Accessories

PART NUMBER	REPLACEMENT FOR GRESEN	RELIEF VALVE	RELIEF & ANTI-CAVITATION CHECK	ANTI-CAVITATION CHECK	500-1249 SET @ 1200 PSI	1250-1749 SET @ 1700 PSI	1750-1999 SET @ 1950 PSI	2000-2599 SET @ 2550 PSI
WV20-CRA-1200	CRA-A-1200		X		X			
WV20-CRA-1700	CRA-A-1700		X			X		
WV20-CRA-1950	CRA-A-1950		X				X	
WV20-CRA-2550	CRA-A-2550		X					X
WV20-RC-500	RC-A-500	X			X			
WV20-RC-1200	RC-A-1200	X			X			
WV20-RC-1700	RC-A-1700	X				X		
WV20-RC-1950	RC-A-1950	X					X	
WV20-RC-2550	RC-A-2500	X						X
WV20-K-AC	K-20-AC			X				

Outlet Sections



Outlet Covers

PART NUMBER	DESCRIPTION	REPLACEMENT FOR GRESEN	PORT SIZE & LOCATION # 12 SAE
WV20-RC-12-E (Body)	OPEN CENTER W/NO POWER BEYOND OPTION	20-RC-12-E	END
WV20-RC-12-E-MY (Body)	OPEN CENTER W/ POWER BEYOND CAPABILITY	20-RC-E-MY	END
WV20-K-10-Y	#10 SAE POWER BEYOND SLEEVE	K-20-10-Y	
WV20-K-C	CLOSED CENTER PLUG	K-20-C	
WV20-K-X	CONVERSION PLUG	K-20-X	



V A L V E S

Handle Options

PART NUMBER	DESCRIPTION	REPLACEMENT FOR GRESN
WV20-K-HH-B	HORIZONTAL HANDLE & LINKAGE KIT (BLACK)	K-20-HH-B
WV20-K-VH-B	VERTICAL HANDLE & LINKAGE KIT (BLACK)	K-20-VH-B

Stud Kits

PART NUMBER	DESCRIPTION	REPLACEMENT FOR GRESN
WV20-K-1	1 WORK SECTION STUD KIT	K-20-1
WV20-K-2	2 WORK SECTION STUD KIT	K-20-2
WV20-K-3	3 WORK SECTION STUD KIT	K-20-3
WV20-K-4	4 WORK SECTION STUD KIT	K-20-4
WV20-K-5	5 WORK SECTION STUD KIT	K-20-5
WV20-K-6	6 WORK SECTION STUD KIT	K-20-6
WV20-K-7	7 WORK SECTION STUD KIT	K-20-7
WV20-K-8	8 WORK SECTION STUD KIT	K-20-8

Spool Positioners

PART NUMBER	DESCRIPTION	REPLACEMENT FOR GRESN
WV20-K-D	3 POSITION DETENT	K-20-D
WV20-K-PA1	PNEUMATIC SPOOL POSITIONER KIT	K-20-PA-1
WV20-K-R	SPOOL "IN" DETENT w/ SPRING RETURN TO NEUTRAL	K-20-R
WV20-K-RO	SPOOL "OUT" DETENT w/ SPRING RETURN TO NEUTRAL	K-20-RO

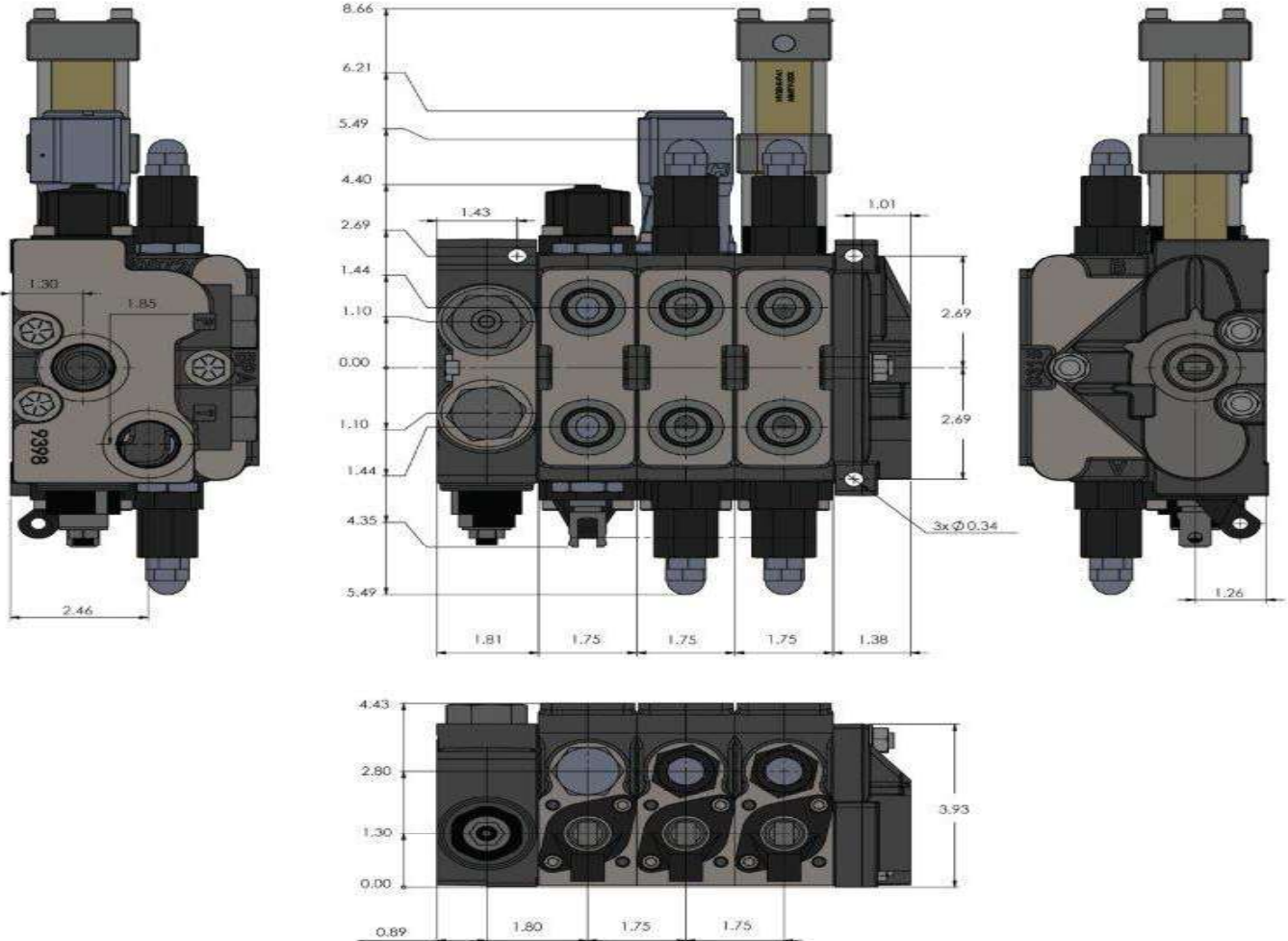
Seal Kits

PART NUMBER	DESCRIPTION	REPLACEMENT FOR GRESN
WV20-K-6035	SPOOL SEALS	K-6035
WV20-K-6121	SECTION SEALS	K-6121



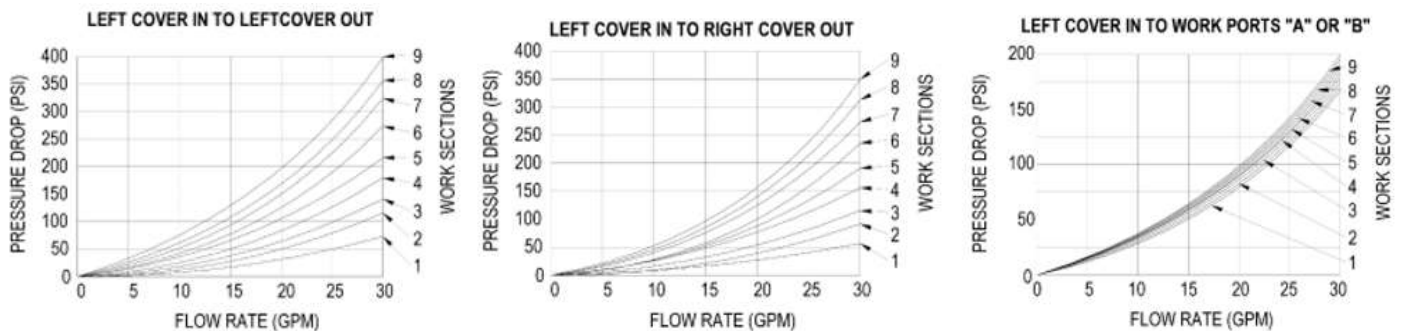
V A L V E S

20 Gallon Sectional Valve Specifications & Dimensional Data



Performance Curves

(All tests run using 150 SUS oil, at 120°F. SAE-12 inlet and outlet ports and SAE-10 work section ports)





V A L V E S

Mono-Block Directional Control Valves



FEATURES:

- 1-6 spool mono-block
- 3500 PSI rating
- #8 SAE O-ring in/out Ports
- #8 SAE O-ring work ports
- Interchangeable motor spool
- Load check
- Parallel cylinder spools
- Adjustable relief
- Enclosed handle design
- Open center – field convertible to power beyond & closed center included
- Low spool leakage (3cc/min @ 1500 PSI)
- Hardened steel spools

MB Mono-Block Directional Control Valve Assemblies

VALVE MODEL NO.	NO. OF SPOOLS	SPOOL TYPE, ACTION	WEIGHT (POUNDS)
MB11B5C1	1	4 WAY 3 POSITION, SPRING CENTER TO NEUTRAL, ALL SPOOLS	6.9
MB11C5C1	1	4 WAY 3 POSITION MOTOR, 3 POSITION DETENT, ALL SPOOLS	7.2
†MB11G5C1	1	4 WAY 4 POSITION FLOAT, SPRING CENTER W/FLOAT DETENT	7.2
MB21BB5C1	2	4 WAY 3 POSITION, SPRING CENTER TO NEUTRAL, ALL SPOOLS	9.7
MB21GB5C1	2	4 WAY 4 POSITION FLOAT, SPRING CENTER W/FLOAT DETENT, 1 ST SPOOL 4 WAY 3 POSITION, SPRING CENTER TO NEUTRAL, 2 ND SPOOL	10.2
MB31BBB5C1	3	4 WAY 3 POSITION, SPRING CENTER TO NEUTRAL, ALL SPOOLS	12.8
MB41BBBB5C1	4	4 WAY 3 POSITION, SPRING CENTER TO NEUTRAL, ALL SPOOLS	16.1
MB51BBBBB5C1	5	4 WAY 3 POSITION, SPRING CENTER TO NEUTRAL, ALL SPOOLS	19.2
MB61BBBBBB5C1	6	4 WAY 3 POSITION, SPRING CENTER TO NEUTRAL, ALL SPOOLS	22.2

MB Mono-Block Directional Control Valve Parts

PART NO.	DESCRIPTION
612000001	3 WAY TANDEM SPOOL (single acting)
612100001	MOTOR SPOOL
660170055	HANDLE WITH KNOB
660170056	GLASS FILLED NYLON ENCLOSED HANDLE HOUSING
660170057	SPRING CENTER KIT
660170058	THREE POSITION DETENT KIT
660170060	ALUMINUM ENCLOSED HANDLE HOUSING
660170061	JOYSTICK KIT (field installable)
660270005	RELIEF VALVE (2000-3500)
660270006	NO RELIEF PLUG
660570003	SEAL KIT
670300133	580 – 1160 PSI RELIEF SPRINGS
670300134	913 – 2900 PSI RELIEF SPRINGS
671400306	ALUMINUM END CAP WITH SCREWS
671400307	GLASS FILLED NYLON END CAP WITH SCREWS
671900122	POWER BEYOND PLUG / CLOSED CENTER PLUG

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.

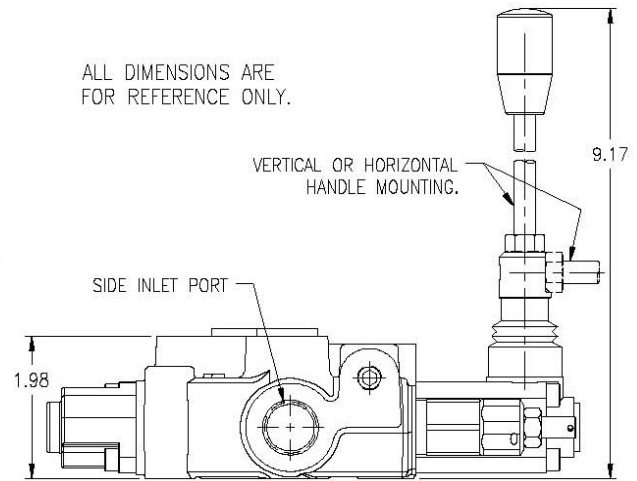
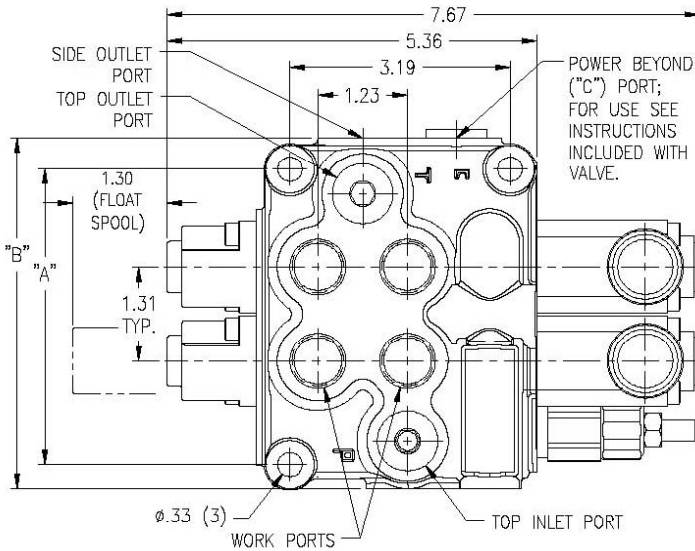


V A L V E S

MB Specifications and Dimensional Data

MAXIMUM OPERATING PRESSURE 3500 PSI
 MAXIMUM POWER BEYOND PRESSURE 3000 PSI
 MAXIMUM TANK PRESSURE 500 PSI
 NOMINAL FLOW RATING 8 GPM
 MAXIMUM OPERATING TEMPERATURE 180° F

STRAIGHT HANDLE LENGTH: 5.8 INCHES
 FILTRATION RECOMMENDATIONS: ISO 4406 19 / 17 / 14
 SPOOL SEALS IN INTERNAL O-RING GROOVES
 HIGH PRESSURE ADJUSTABLE RELIEF ADJUSTMENT RANGE
 2000-3500 PSI (PRESET TO 2500 PSI @ 6 GPM)



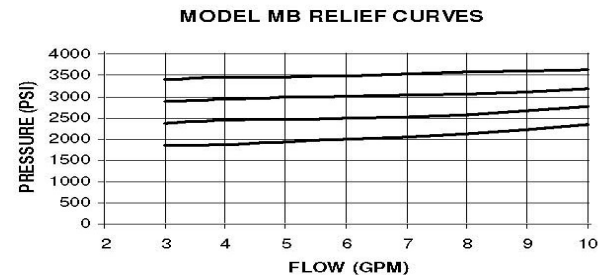
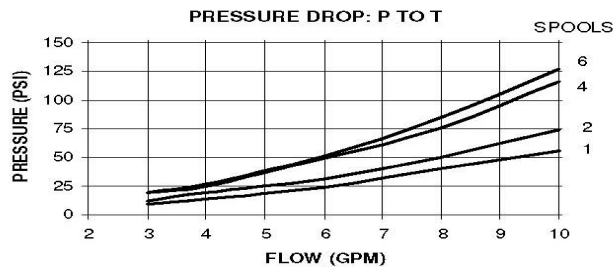
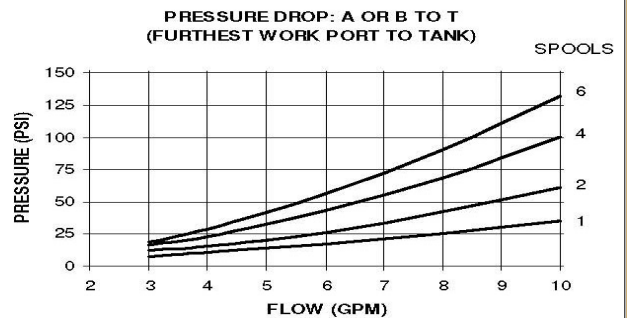
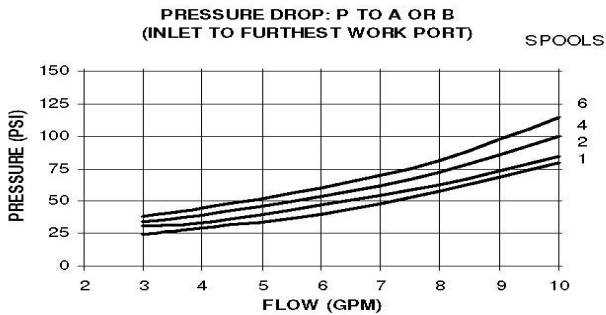
ALL DIMENSIONS ARE FOR REFERENCE ONLY.

INLET AND OUTLET PORTS: #8 SAE/ORB (3/4-16UNF-2B)
 ALL WORK PORTS: #8 SAE/ORB (3/4-16UNF-2B)
 POWER BEYOND PORT: #8 SAE/ORB (3/4-16UNF-2B)

NUMBER OF SPOOLS:

	1	2	3	4	5	6
"A"	2.87	4.33	5.79	7.24	8.70	10.16
"B"	3.78	5.16	6.62	8.07	9.53	10.99

Performance Curves





V A L V E S

Log Splitter Valves

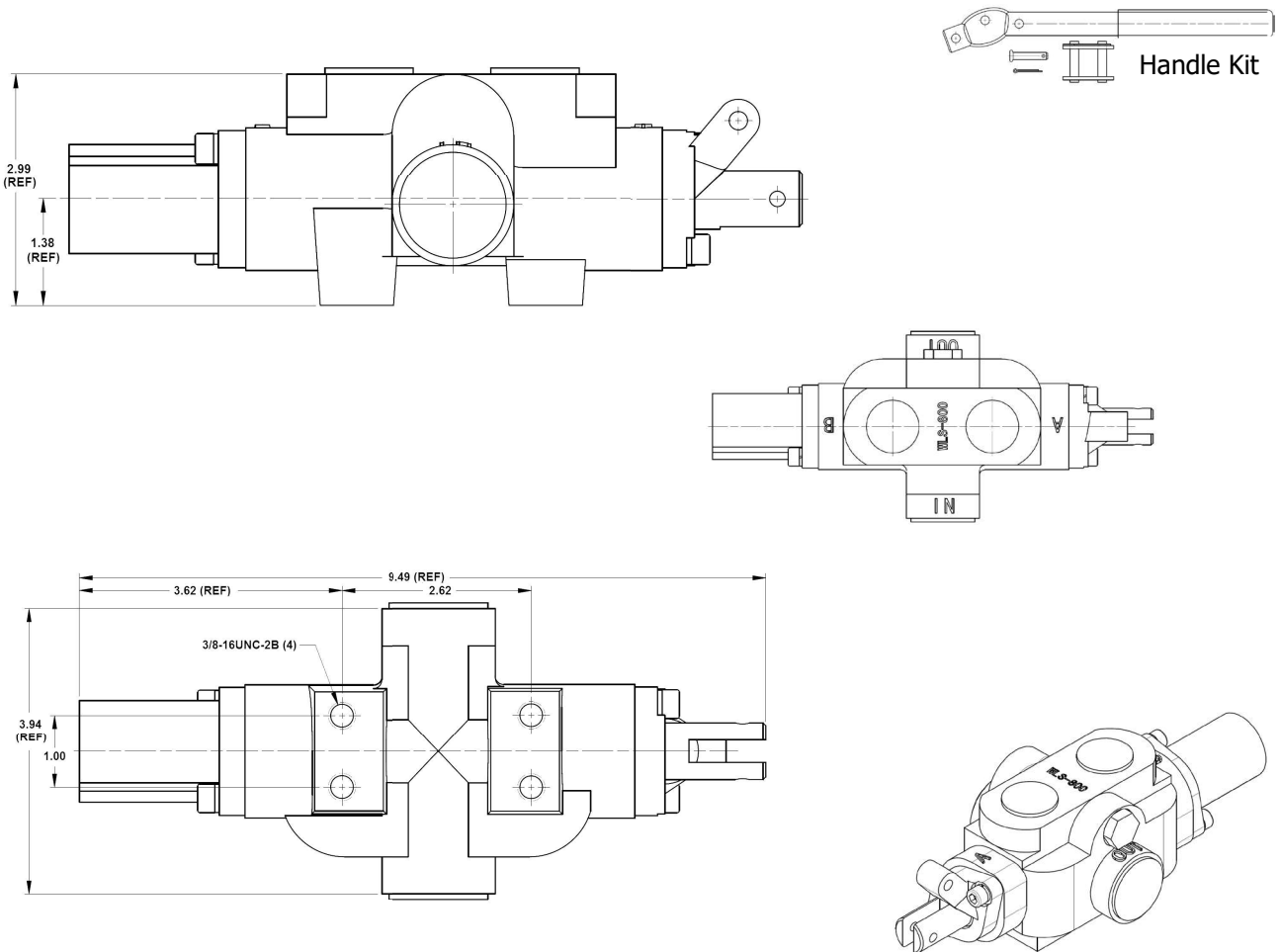


FEATURES:

- Pressure release detent at end of retract stroke / detent in spool in position
- Relief set to 2,250 PSI
- Max tank port pressure 500 PSI
- Max operating temperature 180° F

Log Splitter Valves

MODEL No.	DESCRIPTION	PORT SIZE WORK / IN-OUT	MAX PSI	MAX FLOW	SHIPPING WEIGHT
WLS-800	Log Splitter Valve	1/2"NPTF / 3/4"NPTF	3,265 PSI	30 GPM	10





V A L V E S

Adjustable Flow Control Valves



The W-1900 is a pressure compensated adjustable flow control valve. By rotating the handle, the flow out the "CF" or controlled flow port can be varied within the range given in the chart below. Any remaining flow is bypassed to the "EF" or excess flow port. This flow can be used to power another circuit or can be returned to tank. Once the controlled flow is set, it will remain nearly constant with variations in pressure on either the controlled or excess flow ports. Please note, if during operation the controlled flow port is blocked, the valve will compensate in such a way as to shut off flow to the excess port.

This valve can also be used as a restrictive flow control by plugging the excess flow port.

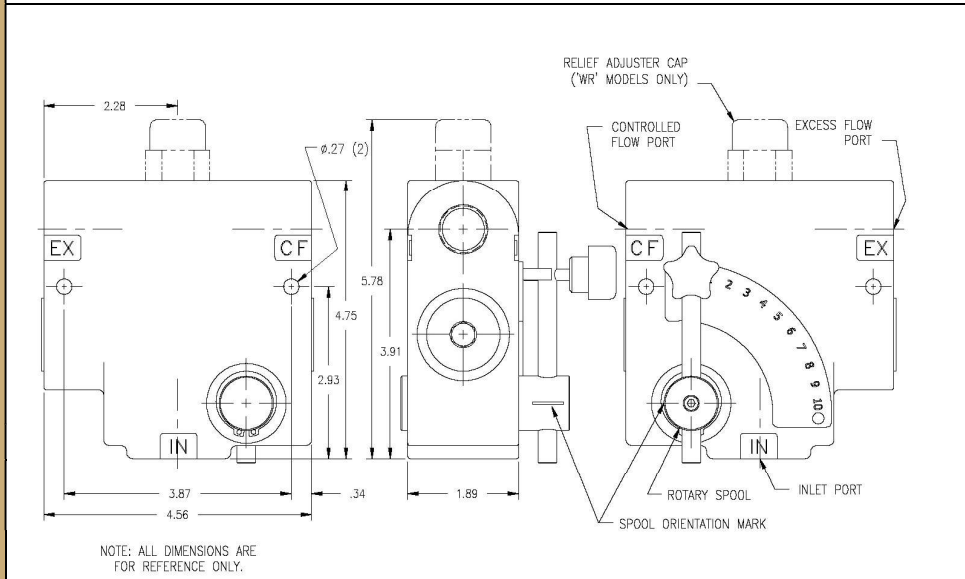
The WR-1900 has a built-in adjustable pressure relief. For this model, the excess flow port **must** be connected to tank. It should be noted that whenever this or any valve is used to bypass or restrict flow, heat will be generated. Steps may be required to keep oil temperature from becoming too high.

W/WR Adjustable Flow Control Valves

MODEL No.	DESCRIPTION	CROSS REF.	WEIGHT (POUNDS)
W-1908-8	#8 SAE/ORB PORTS (O-8 GPM CF SPOOL)	FC51-8	9
W-1950-16	1/2-NPTF PORTS (O-16 GPM CF SPOOL)	FC51-1/2	9
WR-1950-16	1/2-NPTF PORTS (O-16 GPM W/RELIEF)	FCR51-1/2	9

RELIEF PRESSURE INFORMATION:

Inlet relief protection available on "WR" models. Relief pressure preset at 1500 PSI and is adjustable from 1250 to 3000 PSI. To adjust, remove acorn nut, turn adjusting screw clockwise to increase pressure, counterclockwise to reduce pressure. Reinstall acorn nut after adjusting. Use a pressure gauge when making adjustments.



VALVE SPECIFICATIONS

- 30 GPM max flow
- 3000 PSI max
- 180° F max temp
- Filtration 17/14/19
- For use with mineral based hydraulic fluid
- Side port configuration
- 100% Tested
- External seals on rotary spool prevent contamination from locking up spool

KITS

PART NO.	DESCRIPTION
660170064	HANDLE KIT



V A L V E S

In-Line Flow Control Valves



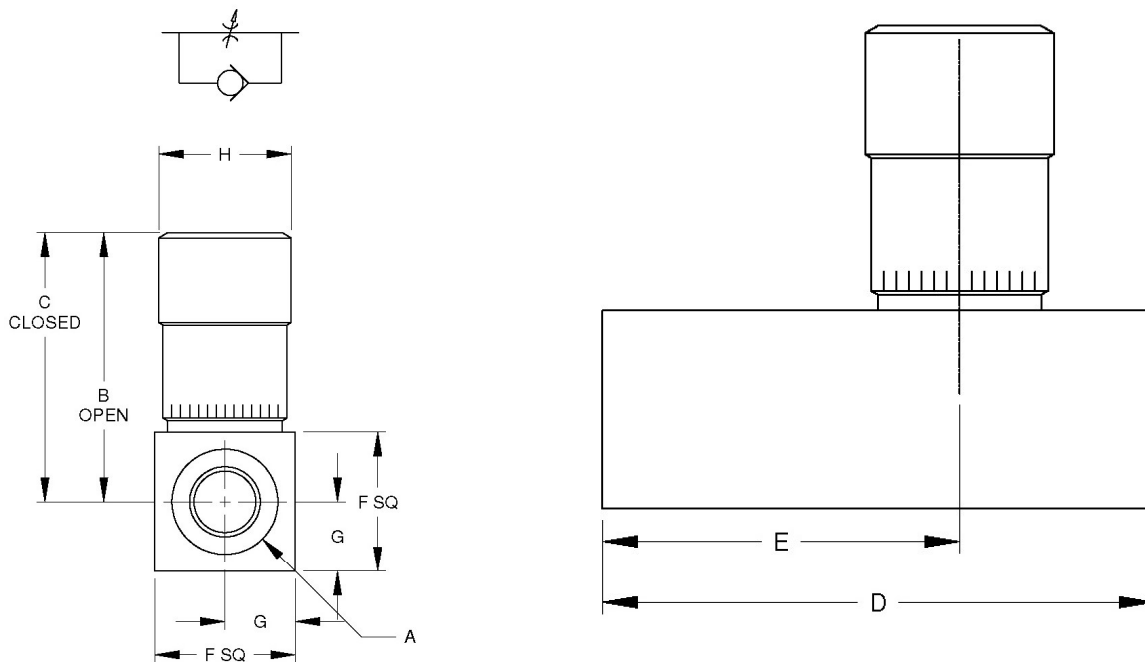
FEATURES:

- Carbon steel body
- Designed to provide precision flow control & shut off in one flow direction & provide free flow in the opposite direction
- Color bands allow fast return to a previous setting
- Set screw locks valve to any setting
- Operating temp range -20°F through 210°F

In-Line Flow Control Valves

MODEL No.	PORT SIZE	MAX PSI	MAX FLOW	SHIPPING WEIGHT
WFC-600	3/8" NPTF	5,000 PSI	8 GPM	0.9
WFC-800	1/2 " NPTF	5,000 PSI	15 GPM	1.5

MODEL NO.	MAX FLOW	A	B	C	D	E	F	G	H
WFC-600	8 GPM	3/8 NPTF	2.18	1.94	2.75	1.75	1	.5	1
WFC-800	15 GPM	1/2 NPTF	2.70	2.42	3.44	2.23	1.25	.63	1.19





V A L V E S

In-Line Needle Valves



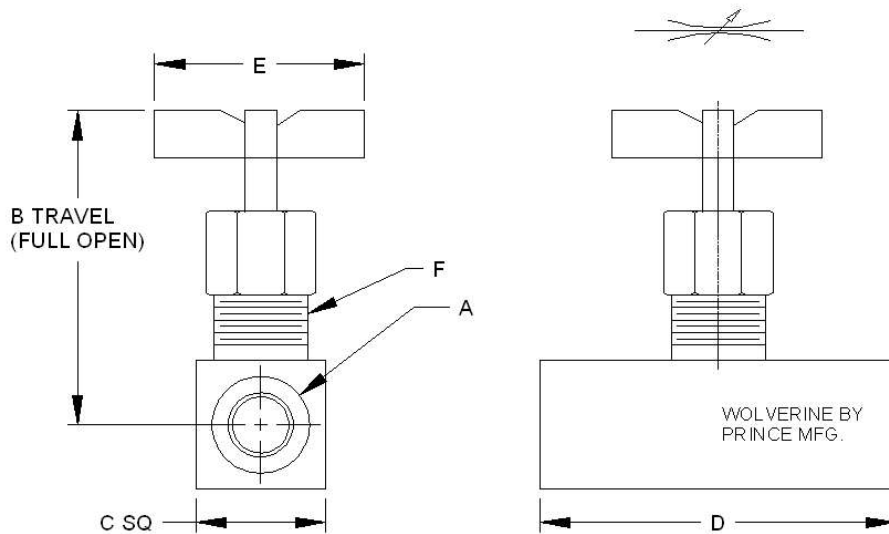
FEATURES:

- Carbon steel body
- Designed to provide precision flow control
- Operating temp range -20°F through 210°F

In-Line Needle Valves

MODEL No.	PORT SIZE	MAX PSI	MAX FLOW	SHIPPING WEIGHT
WNV-600	3/8" NPTF	5,000 PSI	8 GPM	1.0
+ WNV-800	1/2" NPTF	5,000 PSI	16 GPM	1.8

MODEL NO.	MAX FLOW	MAX PSI	A	B	C	D	E	F
WNV-600	8 GPM	5000	3/8 NPTF	4.2	1	2.5	2.5	M22-1.5
WNV-800	16 GPM	5000	1/2 NPTF	5.1	1.25	2.62	3.25	M28-1.5



† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.



V A L V E S

Ball Valves for Hydraulic Use

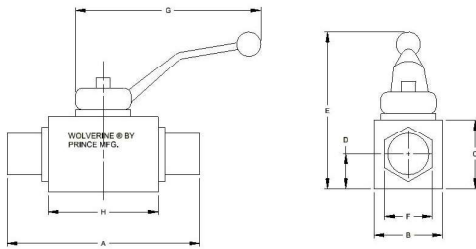


FEATURES:

- 1/4", 3/8", 1/2" sizes 7,250 PSI (CWP)
- Carbon Steel Body Zinc Plated
- Hard Chrome Plated Steel Ball, POM Seat
- 3 way valves are "L" Type
- Operating Temp -20° to 175° F
- Not Recommended for Steam, Gas, or Water Service

2 Way High Pressure Ball Valves

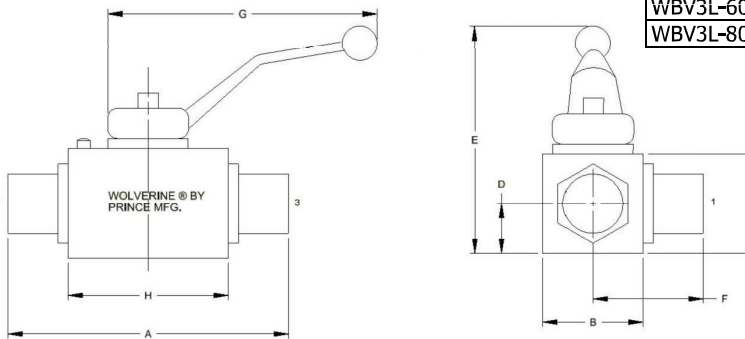
MODEL No.	PORT SIZE	MAX PSI	SHIPPING WEIGHT
WBV2-SAE6	SAE6	7,250 PSI	1.5
WBV2-SAE8	SAE8	7,250 PSI	2.0



MODEL NO.	A	B	C	D	E	F	G	H
WBV2-SAE6	2.83	1.25	1.42	.63	2.87	1.06	4.72	1.65
WBV2-SAE8	3.27	1.38	1.50	.70	2.95	1.18	4.72	1.85

3 Way High Pressure Ball Valves (L-Bore)

WBV3L-600	3/8" NPTF	7,250 PSI	2.0	Not Stocked
WBV3L-800	1/2" NPTF	7,250 PSI	2.5	Not Stocked



MODEL NO.	A	B	C	D	E	F	G	H
WBV3L-600	2.83	1.25	1.42	.63	2.87	2.05	4.72	1.65
WBV3L-800	3.27	1.38	1.50	.70	2.95	2.26	4.72	1.85



PUMPS

Hand Pumps



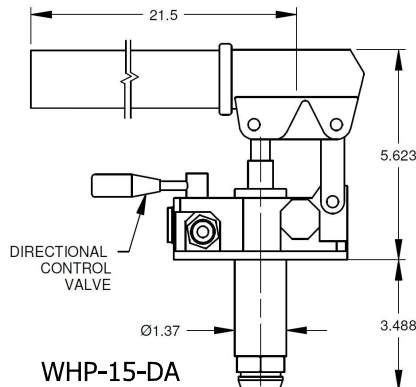
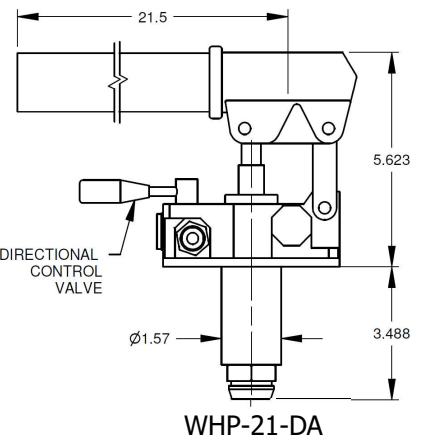
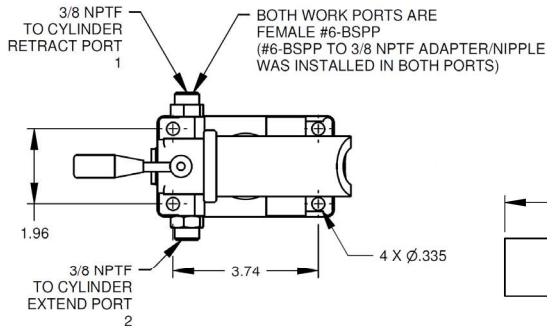
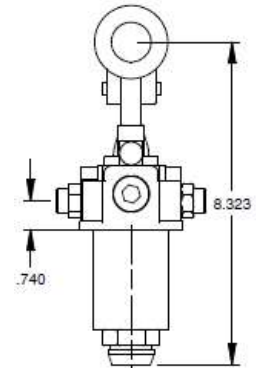
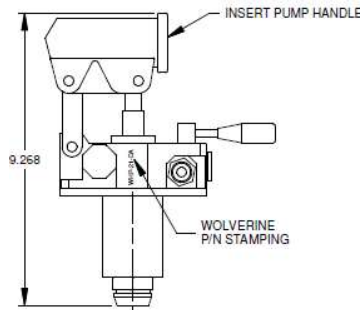
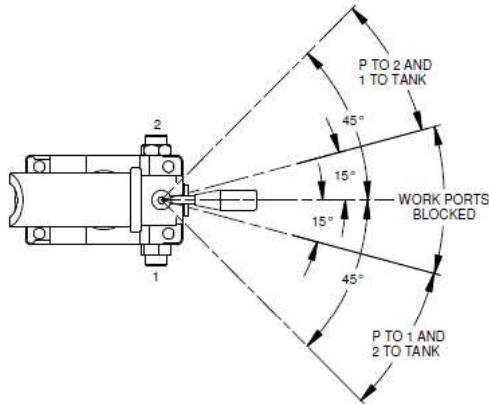
FEATURES:

- Up to 3500 PSI Working Pressure
- "DA" Series have a built in Directional Control Valve
- 1.5 and 2.1 Cubic Inch Per Cycle (one up and one down)



Hand Pumps – Double Acting Heads

MODEL No.	DESCRIPTION	SHIPPING WEIGHT (pounds)	
WHP-15-DA	1.5 CUBIC INCH DOUBLE ACTING HEAD	10	
WHP-21-DA	2.1 CUBIC INCH DOUBLE ACTING HEAD	10	
240040088	HEAD / TANK SEAL KIT	1	





PUMPS

Hand Pumps



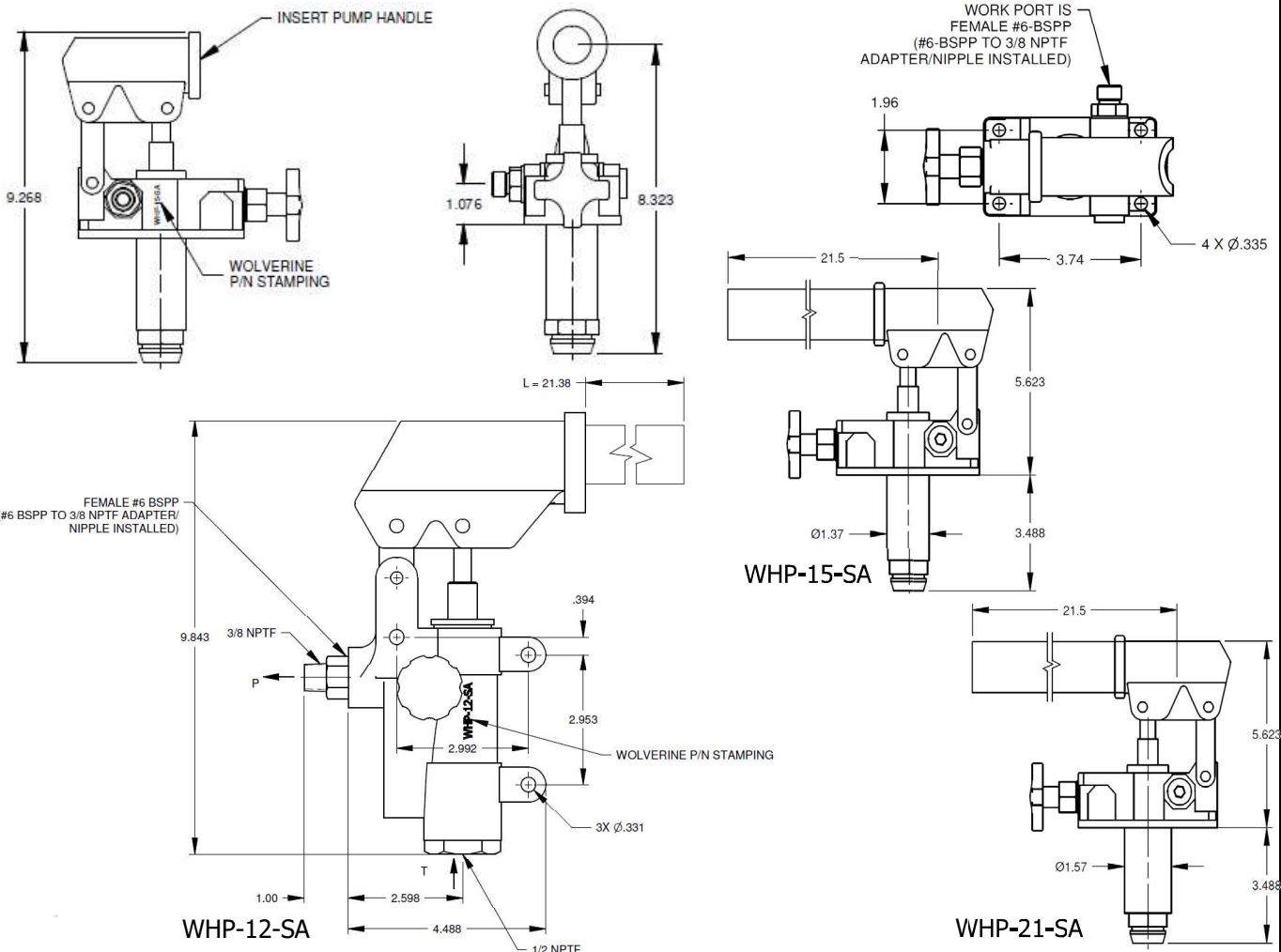
FEATURES:

- Up to 3500 PSI Working Pressure
- "SA" Series is Single Acting
- 1.5 and 2.1 Cubic Inch Per Cycle (one up and one down)



Hand Pumps – Single Acting Heads

MODEL No.	DESCRIPTION	SHIPPING WEIGHT	
		(pounds)	
WHP-15-SA	1.5 CUBIC INCH SINGLE ACTING HEAD	10	
WHP-21-SA	2.1 CUBIC INCH SINGLE ACTING HEAD	10	





P U M P S

Hand Pumps



FEATURES:

- Steel tanks
- Mounting brackets standard feature
- Painted black
- Drain port ¼ BSPP
- Fill port ⅜ BSPP

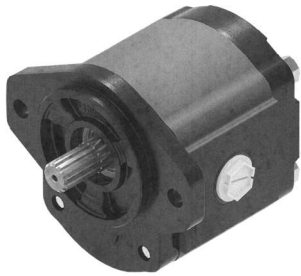
Hand Pump Tanks

MODEL No.	DESCRIPTION	SHIPPING WEIGHT (pounds)
WHP-T-300	STEEL TANK, 300 CU IN. 1.3 GAL	7
WHP-T-180	STEEL TANK, 180 CU IN. 0.8 GAL	5
WHP-T-60	STEEL TANK, 60 CU IN. 0.25 GAL	4



P U M P S

Gear Pumps



FEATURES:

- Reversible gear sets
- Cast iron front & back covers
- Viton seals available
- Working pressures up to 3600 PSI
- Customization available
 - Flanges
 - Shaft sizes
 - Flow control rear cover
- Double pumps: Available in WPA, WPB & WPC
- Maximum speed from 2500 to 4000 RPM using SAE 10W oil
- Displacement covers 0.27 in³/rev. to 4.48 in³/rev.
- Inlet pressure: Pump inlet should not exceed 5 in. of mercury vacuum or 14 PSI positive pressure
- Ports: SAE straight thread O-ring boss for WPA, WPB & WPC
- Working oil: A mineral based oil with additives to resist corrosion oxidation, & foaming is recommended. Viscosity at any running condition should be 60 SUS minimum & 250 SUS maximum. 180° F is the maximum recommended system operating temperature
- Filtration: Per ISO cleanliness code level 17/14/15 micron filtration for full PSI is recommended

WP Gear Pumps

MODEL NUMBER	DISPLACEMENT CU IN/REV	RATED PRESSURE (PSI)	SHAFT TYPE	WT LBS.
WPA06A2R	.4	3600	5/8 KEYED	7.7
† WPA06A3R	.4	3600	SAE 11T SPLINE	7.7
WPA06A9R	.4	3600	SAE 9T SPLINE	7.7
WPA08A2L	.5	3600	5/8 KEYED	7.9
WPA08A2R	.5	3600	5/8 KEYED	7.9
WPA08A4R	.5	3600	3/4 KEYED	7.9
WPA08A9L	.5	3600	SAE 9T SPLINE	7.9
WPA08A9R	.5	3600	SAE 9T SPLINE	7.9
† WPA10A2L	.65	3600	5/8 KEYED	8.2
WPA10A2R	.65	3600	5/8 KEYED	8.2
WPA10A4R	.65	3600	3/4 KEYED	8.2
WPA11A2R	.68	3600	5/8 KEYED	8.3
WPA11A9L	.68	3600	SAE 9T SPLINE	8.3
† WPA11A9L-P150	.68	3600	SAE 9T SPLINE	8.5
WPA11A9R	.68	3600	SAE 9T SPLINE	8.3
WPA14A2R	.84	3600	5/8 KEYED	8.5
† WPA14A4L	.84	3600	3/4 KEYED	8.5
WPA14A4R	.84	3600	3/4 KEYED	8.5
WPA14A9R	.84	3600	SAE 9T SPLINE	8.5
† WPA14D9R	.84	3600	SAE 9T SPLINE	8.5
WPA16A2L	1.01	3500	5/8 KEYED	8.8
WPA16A2R	1.01	3500	5/8 KEYED	8.8
WPA16A4R	1.01	3500	3/4 KEYED	8.8
WPA16A9L	1.01	3600	SAE 9T SPLINE	8.8
WPA16A9R	1.01	3500	SAE 9T SPLINE	8.8
† WPA19A2L	1.18	3600	5/8 KEYED	9.2
WPA19A2R	1.18	3000	5/8 KEYED	9.2
† WPA19A4L	1.18	3000	3/4 KEYED	9.2
WPA19A9L	1.18	3000	SAE 9T SPLINE	9.2
WPA19A9R	1.18	3000	SAE 9T SPLINE	9.2
WPA23A2R	1.37	2750	5/8 KEYED	9.5
WPA23A9L	1.37	2900	SAE 9T SPLINE	9.5
WPA23A9R	1.37	2750	SAE 9T SPLINE	9.5
WPA26A2R	1.58	2500	5/8 KEYED	10.1
† WPA26A9R	1.58	2500	SAE 9T SPLINE	10.1

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

CHECK OUR PRINCE WEBSITE OR CONTACT YOUR SALES REP TO VERIFY IF NON-STOCKED ITEMS ARE STILL ON HAND FOR IMMEDIATE SHIPMENT.



P U M P S

WP Gear Pumps (continued)

MODEL NUMBER	DISPLACEMENT CU IN/REV	RATED PRESSURE (PSI)	SHAFT TYPE	WT LBS.
† WPB19A5R	1.16	3600	SAE 13T SPLINE	7.9
WPB22A6R	1.35	3600	7/8 KEYED	8.3
WPB28A6R	1.68	3600	7/8 KEYED	9.9
† WPB32A6R	1.97	3300	7/8 KEYED	10.5
† WPB38A5L	2.32	2900	SAE 13T SPLINE	11
† WPB38A5R	2.32	2900	SAE 13T SPLINE	11
WPB38A6R	2.32	2900	7/8 KEYED	11
WPB44A5R	2.69	2500	SAE 13T SPLINE	11.7
WPB44A6R	2.69	2500	7/8 KEYED	11.7
WPC21A5R-RD	1.26	3600	SAE 13T SPLINE	13
† WPC27A6R-RD	1.65	3600	7/8 KEYED	13.5
WPC55A5R-RD	3.30	3200	SAE 13T SPLINE	23
WPC55A6R	3.30	3200	7/8 KEYED	15
† WPC55A6R-RD	3.30	3200	7/8 KEYED	23
WPC65A5L	3.85	2900	SAE 13T SPLINE	15.5
† WPC65A5L-RD	3.85	2900	SAE 13T SPLINE	15.5
WPC65A6L	3.85	2900	7/8 KEYED	15.5
† WPC65A6R	3.85	2900	7/8 KEYED	15.5
† WPC65A6R-RD	3.85	2900	7/8 KEYED	23
† WPHL0616A2R	0.4 / 1.41	3600 / 600	5/8 KEYED	14
† WPHL0823A2R	0.5 / 1.87	3600 / 600	5/8 KEYED	15

SEAL KIT	
PMCK-WPA	
PMCK-WPB	
PMCK-WPC	

† NON-STOCKED ITEMS AVAILABLE AT STANDARD LEAD-TIME.

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P U M P S

WPA A Flange Gear Pumps Specifications & Dimensional Data

WPA 08 A 4 R

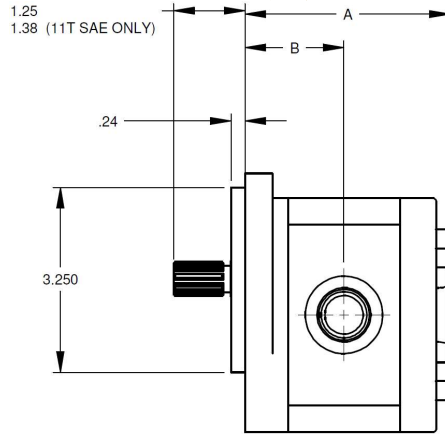
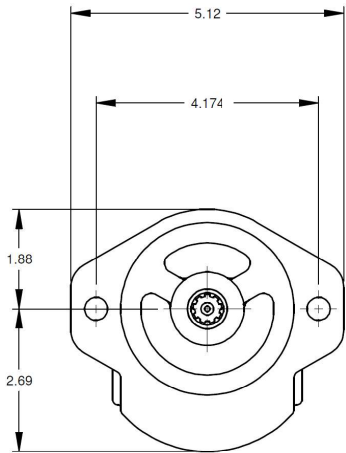
DISPLACEMENT CODE	CC / REV	CU. IN. / REV	CONTINUOUS PSI	RATED SPEED (RPM)	INLET PORT SIZE	OUTLET PORT SIZE	"A"	"B"
04	4.6	0.27	3600	4000	#12 SAE	#10 SAE	3.50	1.68
06	6.5	0.40	3600	4000	#12 SAE	#10 SAE	3.60	1.73
08	8.2	0.50	3600	3500	#12 SAE	#10 SAE	3.62	1.79
10	10.6	0.65	3600	3500	#12 SAE	#10 SAE	3.73	1.86
11	11.5	0.68	3600	3500	#12 SAE	#10 SAE	3.87	1.92
12	12.5	0.77	3600	3500	#12 SAE	#10 SAE	3.93	1.95
14	13.8	0.84	3600	3500	#12 SAE	#10 SAE	4.00	2.00
16	16.6	1.01	3600	3000	#12 SAE	#10 SAE	4.15	2.08
19	19.4	1.18	3200	3000	#12 SAE	#10 SAE	4.31	2.24
23	22.9	1.37	2900	2750	#12 SAE	#10 SAE	4.63	2.34
26	25.8	1.58	2600	2500	#12 SAE	#10 SAE	4.84	2.46

ROTATION (FACING END OF SHAFT)	
L	(COUNTER CLOCKWISE)
R	(CLOCKWISE)

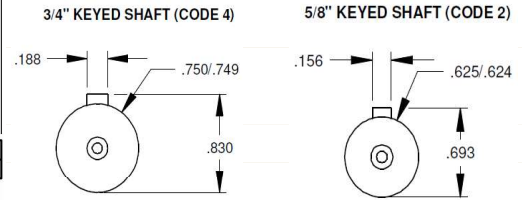
SHAFT CODE	SHAFT TYPE
9	9 T SAE SPLINE
2	SAE 5/8" STRAIGHT KEYED
3	11 T SAE SPLINE
4	3/4" STRAIGHT KEYED

PORT LOCATION CODE	PORT LOCATION
A	SIDE INLET AND OUTLET
C*	BOTH SIDE AND REAR PORTS W/ STEEL PLUGS
D*	REAR INLET AND OUTLET

* ADD 0.35" FOR LENGTH "A" FOR REAR PORTS



SHAFT OPTIONS



SPLINED SHAFT OPTIONS

SHAFT CODE 9
9 TOOTH SAE
16/32 DP
30° PA

SHAFT CODE 3
11 T SAE
16/32 DP
30° PA

WPA Performance Data

MODEL		RPM								PRESSURE (PSI)
		500	1000	1500	2000	2500	3000	3500	4000	
WPA06	FLOW (GPM)	0.73	1.54	2.37	3.16	3.99	4.84	5.65	6.45	3600
	INPUT HP	2.07	4.13	6.20	8.26	10.33	12.39	14.46	16.52	
WPA08	FLOW (GPM)	0.92	1.95	2.99	3.98	5.03	6.10	7.12		
	INPUT HP	2.61	5.21	7.82	10.42	13.03	15.63	18.24		
WPA10	FLOW (GPM)	1.19	2.52	3.86	5.15	6.51	7.89	9.21		
	INPUT HP	3.37	6.74	10.11	13.47	16.84	20.21	23.58		
WPA11	FLOW (GPM)	1.32	2.79	4.28	5.71	7.22	8.76	10.21		
	INPUT HP	3.74	7.47	11.21	14.95	18.69	22.42	26.16		
WPA14	FLOW (GPM)	1.55	3.28	5.03	6.70	8.47	10.27	11.99		
	INPUT HP	4.39	8.77	13.16	17.54	21.93	26.31	30.70		
WPA16	FLOW (GPM)	1.86	3.94	6.05	8.06	10.19	12.36			
	INPUT HP	5.28	10.55	15.83	21.10	26.38	31.65			
WPA19	FLOW (GPM)	2.18	4.61	7.07	9.42	11.91	14.44			
	INPUT HP	5.43	10.85	16.28	21.70	27.13	32.55			
WPA23	FLOW (GPM)	2.57	5.44	8.34	11.12	14.06				
	INPUT HP	5.82	11.64	17.46	23.29	29.11				
WPA26	FLOW (GPM)	2.89	6.13	9.40	12.53	15.84				
	INPUT HP	5.90	11.81	17.71	23.61	29.51				



P U M P S

WPB B Flange Gear Pumps Specifications & Dimensional Data

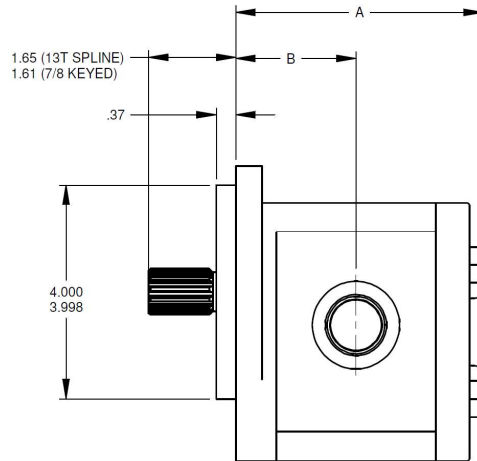
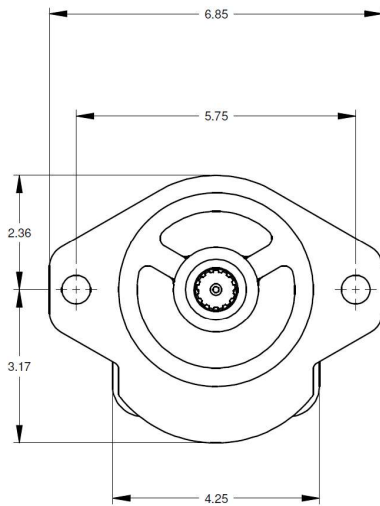
WPB 38 A 5 R

DISPLACEMENT CODE	CU. IN. / REV	CONTINUOUS PSI	RATED SPEED (RPM)	INLET PORT SIZE	OUTLET PORT SIZE	"A"	"B"
16	0.97	3600	3000	SAE #12	SAE #10	4.45	2.05
19	1.16	3600	3000	SAE #12	SAE #10	4.53	2.13
22	1.35	3600	3000	SAE #12	SAE #10	4.66	2.2
25	1.53	3600	3000	SAE #16	SAE #12	4.95	2.35
28	1.68	3600	3000	SAE #16	SAE #12	5.25	2.5
32	1.97	3300	3000	SAE #16	SAE #12	5.47	2.61
38	2.32	2900	2750	SAE #16	SAE #12	5.77	2.72
44	2.69	2450	2500	SAE #16	SAE #12	6.02	2.9

ROTATION (FACING END OF SHAFT)	
L	(COUNTER CLOCKWISE)
R	(CLOCKWISE)

SHAFT CODE	SHAFT TYPE
5	SAE 13 TOOTH SPLINE
6	SAE 7/8" KEYED STRAIGHT

PORT LOCATION CODE	PORT LOCATION
A	SIDE INLET AND OUTLET
C	BOTH SIDE AND REAR PORTS W/ STEEL PLUGS
D	REAR INLET AND OUTLET

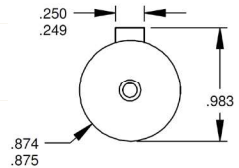


SHAFT OPTIONS

SHAFT CODE 5

SAE 13T SPLINE
16/32 DP
30° PA

SHAFT CODE 6
7/8" STRAIGHT KEYED



WPB Performance Data

MODEL		RPM						PRESSURE
		500	1000	1500	2000	2500	3000	(PSI)
WPB19	FLOW (GPM)	2.17	4.59	7.03	9.38	11.85	14.37	3600
	INPUT HP	6.13	12.27	18.40	24.53	30.67	36.80	
WPB22	FLOW (GPM)	2.49	5.27	8.09	10.78	13.63	16.53	
	INPUT HP	7.05	14.11	21.16	28.22	35.27	42.33	
WPB28	FLOW (GPM)	3.10	6.56	10.06	13.41	16.94	20.55	
	INPUT HP	8.77	17.54	26.31	35.08	43.85	52.62	
WPB32	FLOW (GPM)	3.64	7.70	11.80	15.74	19.89	24.12	
	INPUT HP	9.47	18.94	28.42	37.89	47.36	56.83	
WPB38	FLOW (GPM)	4.27	9.05	13.88	18.51	23.39		3000
	INPUT HP	9.69	19.37	29.06	38.74	48.43		
WPB44	FLOW (GPM)	4.96	10.50	16.10	21.47	27.13		2500
	INPUT HP	9.55	19.10	28.65	38.20	47.76		



P U M P S

WPC B Flange Gear Pumps Specifications & Dimensional Data

WPC 44 A 5 R

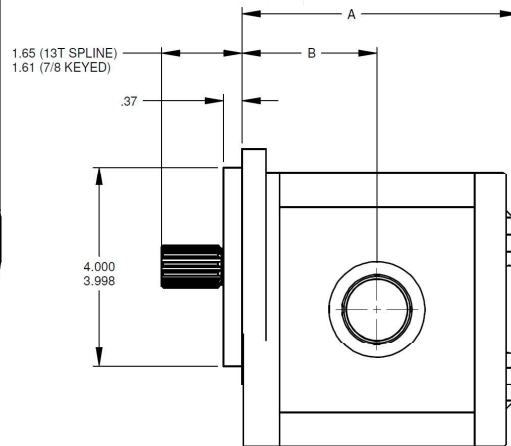
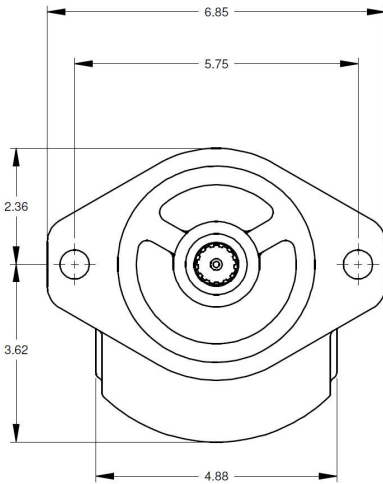
DISPLACEMENT CODE	CU. IN. / REV	CONTINUOUS PSI	RATED SPEED (RPM)	INLET PORT SIZE	OUTLET PORT SIZE	"A"	"B"
21	1.26	3600	3000	SAE #16	SAE #12	5.06	2.33
27	1.65	3600	3000	SAE #16	SAE #12	5.26	2.43
33	2.04	3600	3000	SAE #16	SAE #12	5.46	2.52
38	2.36	3600	2750	SAE #16	SAE #12	5.61	2.60
46	2.86	3600	2750	SAE #20	SAE #16	6.24	2.92
55	3.3	3200	2500	SAE #20	SAE #16	6.43	3.04
65	3.85	2900	2500	SAE #20	SAE #16	6.75	3.17
75	4.48	2600	2500	SAE #20	SAE #16	7.03	3.31

ROTATION (FACING END OF SHAFT)	
L	(COUNTER CLOCKWISE)
R	(CLOCKWISE)

SHAFT CODE	SHAFT TYPE
5	SAE 13 TOOTH SPLINE
6	SAE 7/8" KEYED STRAIGHT
7	SAE 15 TOOTH SPLINE

PORT LOCATION CODE	PORT LOCATION
A	SIDE INLET AND OUTLET
C	BOTH SIDE AND REAR PORTS W/ STEEL PLUGS*

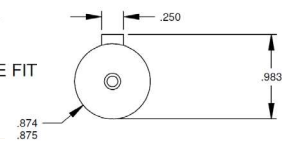
* ADD 0.14" TO LENGTH "A" FOR REAR PORTS



SHAFT OPTIONS

SHAFT CODE 5
SAE 13T SPLINE
16/32 DP
30° PA
FLAT ROOT SIDE FIT

SHAFT CODE 6
7/8" STRAIGHT KEYED



WPC Performance Data

MODEL		RPM					PRESSURE (PSI)
		500	1000	1500	2000	2500	
WPC55	FLOW (GPM)	6.07	12.85	19.71	26.28	33.21	3300
	INPUT HP	15.13	30.26	45.39	60.51	75.64	
WPC65	FLOW (GPM)	7.08	14.99	22.99	30.65	38.73	3000
	INPUT HP	16.04	32.08	48.12	64.17	80.21	



P U M P S

Aluminum / Cast Iron Center PTO Pumps



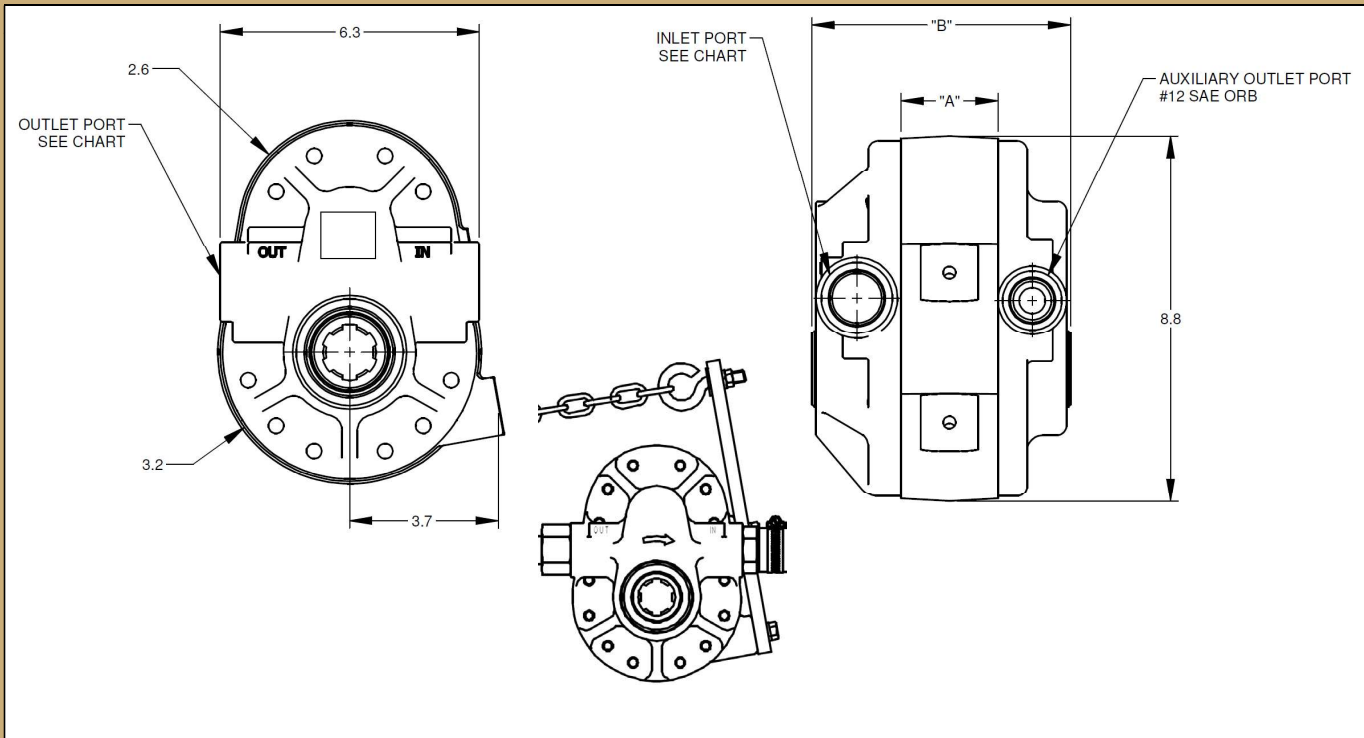
FEATURES:

- Cast iron end plates with aluminum center section
- Self-adjusting wear plates
- Tapped holes for a torque arm kit to prevent pump rotation
- Hose barb for inlet port & NPT adapter for outlet port
- Slips onto tractor PTO shaft (no gear box required)

MODEL NUMBER	DISPLACEMENT CU. IN/REV	RPM	DRIVE SHAFT	INLET PORT	OUTLET PORT	"A"	"B"	GPM OUTPUT (Full RPM)	INLET ADAPTER	WT LBS.
WP-PTO-1A *	9.8	540	6 TOOTH	SAE #16	SAE #12	2.4	6.3	21	1 1/4"	45
WP-PTO-2A *	5.5	540	6 TOOTH	SAE #16	SAE #12	1.6	5.6	11	1"	41
WP-PTO-7A *	3.6	540	6 TOOTH	SAE #16	SAE #12	1.3	5.2	7	1"	37
WP-PTO-8A *	3.6	1000	21 TOOTH	SAE #16	SAE #12	1.3	5.2	13	1"	38
WP-PTO-9A *	7.6	540	6 TOOTH	SAE #16	SAE #12	2.0	6.0	17	1 1/4"	43
WP-PTO-K11 **	9.8	1000	21 TOOTH	SAE #20	SAE #16	2.4	6.3	40	2"	45
WP-PTO-1AC *	9.8	540	6 TOOTH	SAE #16	SAE #12	2.4	6.3	21	1 1/4"	51
WP-PTO-2AC *	5.5	540	6 TOOTH	SAE #16	SAE #12	1.6	5.6	11	1"	45
WP-PTO-K11C **	9.8	1000	21 TOOTH	SAE #20	SAE #16	2.4	6.3	40	2"	51

** Ports on the WP-PTO-K11 & WP-PTO-K11C are located facing rear of the pump

SEAL KITS	
PMCK-WP-PTO-SS *	
PMCK-WP-PTO-RR **	





PRINCE MANUFACTURING CORPORATION TERMS AND CONDITIONS

1. **Warranty:** Prince warrants only standard and custom products of its manufacture to be free from defects in materials or workmanship under normal use for the time periods set forth below.
 - Standard Prince product (listed in Prince's standard products catalog) is warranted for 36 months from the date of purchase by Prince's customer or 30 months from the date the product is first put into service, whichever is earlier.
 - Wolverine standard products are warranted for 15 months from the date of purchase by Prince's customer or 12 months from the date the product is first put into service, whichever is earlier.
 - Custom product is warranted for 15 months from the date of purchase by Prince's customer or 12 months from the date the product is first put into service, whichever is earlier.

Prince's obligation is to repair or replace free of charge or give credit for any part of its product that its inspection shows to be defective including the lowest roundtrip transportation charges from Prince's customer to North Sioux City, South Dakota, and return, but excluding all transportation costs from Prince's customer to its customer and all other costs such as removal and installation expenses.

Prince shall not be liable for loss of time, manufacturing costs, labor, material, loss of profits, or any other consequential damages caused directly or indirectly by defective products, whether or not such claim is based on contract, tort, warranty, or other legal basis.

Written permission for any warranty claim return must be first obtained from authorized Prince personnel. All returns must be accompanied with a complete written explanation of claimed defects and the circumstances of failure.

PRODUCTS MANUFACTURED OR SOLD BY PRINCE ARE NOT WARRANTED EXPRESSLY OR BY IMPLICATION FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NOTWITHSTANDING ANY DISCLOSURE TO PRINCE OF THE USE TO WHICH THE PRODUCT IS TO BE PUT. THIS EXPRESS WARRANTY IS THE SOLE WARRANTY OF PRINCE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE WARRANTY EXPRESSLY SET FORTH IN THIS DOCUMENT. THE SALE OF PRODUCTS OF PRINCE UNDER ANY OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, IS NOT AUTHORIZED.

(This warranty voids all previous issues.)
2. **Cancellation:** This agreement is not subject to cancellation, complete or partial, without Seller's written consent. Cancellation must be done 60 days prior to ship date. Any reduction in quantities ordered shall constitute partial cancellation subject to this clause. When Seller consents to cancellation, settlement shall be made on the following basis:
 - (A) Buyer will pay to Seller upon delivery, full purchase price of all articles completed at the time Seller agrees to cancellation.
 - (B) If Seller elects to complete that part of all the articles scheduled for delivery within 30 days of such date, the full purchase price of such articles will be paid.
 - (C) Buyer will further pay to Seller a percentage of purchase price of remaining articles, equivalent to percentage of completion thereof as determined by Seller's normal cost accounting methods.
 - (D) Buyer will also pay the full costs of materials, dies, patterns and equipment made or contracted specifically for Buyer's order.
 - (E) Invoices for all cancellation charges are payable promptly upon presentation.
 - (F) If within 30 days from the presentation of such invoice Buyer does not instruct Seller as to the disposition of the material. etc., arising from the cancellation, Seller may sell the same, crediting Buyer with the proceeds.
 - (G) Buyer will also pay the reasonable costs and expenses incurred by Seller in making a settlement hereunder and in protecting property in which Buyer has interest.

Seller will defer manufacture or delivery of any articles only if and to the extent agreed to in writing.
3. **Sellers Rights:** The acceptance of this order is subject to the approval of Seller's credit department. If Buyer fails to fulfill the terms of payment of this or any other present or future orders, from Buyer to Seller, Seller may defer further shipments until such payments are made or may at its option cancel this order. Seller reserves the right, even after partial shipment on account of this order, to require from Buyer satisfactory security for the performance of Buyer's obligations. Refusal to furnish such security will entitle Seller to suspend shipments until such security is furnished or to cancel this order.
4. **Pricing and Billing:** Each shipment against this contract will be priced and billed separately, in accordance with seller's published prices or special quotation in effect at the same time of the respective shipments.
5. **Taxes:** Prices do not include any present or future applicable federal, state, or local sales, use, excise, manufacturing, processing or importation tax, or any other tax or charge, that is or may be imposed on the articles or services covered hereby or on subsidiary articles or material incorporated therein. Any such taxes shall be paid promptly by the Buyer unless prohibited by law. Such taxes may be billed separately if levied after shipment. In all events, Buyer agrees to identify and to hold Seller harmless from any and all of such taxes.
6. **Delivery:** Unless otherwise stated, delivery will be made F.O.B. Seller's manufacturing plant. Risk of loss shall pass to Buyer at point of shipment. Seller shall have the right to choose means of transportation and to route shipments when specific instructions are not provided for herein by Buyer. In all events Buyer will pay for all freight, handling, storage, insurance and all other expenses from the time of shipment and if advanced by Seller shall have no liability whatsoever, nor shall this order be subject to cancellation, for any delay in delivery due to act of God or civil or military authority, fire, labor disturbance, war, insurrection or riot, failure of or delay in transportation, unusually severe weather, default of a supplier or subcontractor, or due to any other cause beyond the Seller's reasonable control. In the event of such a delay for any cause, the specified delivery date shall be extended for a length of time equal to the period of delay.
7. **Shipping Charges:** All delivered prices or prices with freight allowed are based upon prevailing freight rates and if the latter are increased or decreased such prices on all unshipped tonnage shall be increased or decreased accordingly. **It has been and continues to be the policy of Prince Manufacturing Corporation that we do NOT pay any freight charges (air, rail, truck, UPS, parcel post & etc.) for late delivery for any reason.**
8. **Terms:** Invoices are due and payable 30 days from date of invoice unless special payment terms have been agreed to between buyer and seller.
9. **Delay in Performance:** In the event of any delay in Seller's performance due to fire, explosion, strike or other differences with workmen, shortage of utility services, facility, material or labor, delay in transportation, breakdown or accident, compliance with or other action taken to carry out the intent or purpose of any law or regulation or any cause beyond Seller's reasonable control, Seller shall have such additional time within which to perform this contract as may be reasonably necessary under the circumstances and shall have the right to apportion its production among its customers in such manner as it may consider to be equitable.
10. **Overruns:** All special orders, other than standard series units, are subjected to overruns and underruns of not greater than 10%.
11. **Alteration of Terms or Conditions:** This quote, offer, or order acknowledgment is limited to the terms and conditions set forth herein. Prince hereby objects to any additional or different terms and conditions proposed by Buyer in any proposal, quotation, order acknowledgment or other document. Any such proposed terms and conditions shall be void and the terms and conditions herein shall constitute the complete and exclusive statement of the terms and conditions of the contract between the parties. No terms or conditions, other than those set forth by Prince, and no agreement or understanding, oral or written in anyway purporting to modify Prince's terms or conditions, whether contained in Buyer's purchase or shipping release forms, or elsewhere, shall be binding on Prince unless hereafter made in writing and signed by its authorized representative.
12. **Approval:** Unless agreed to by both parties, Seller will assume that this contract is entirely satisfactory and meets with Buyer's full approval.



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