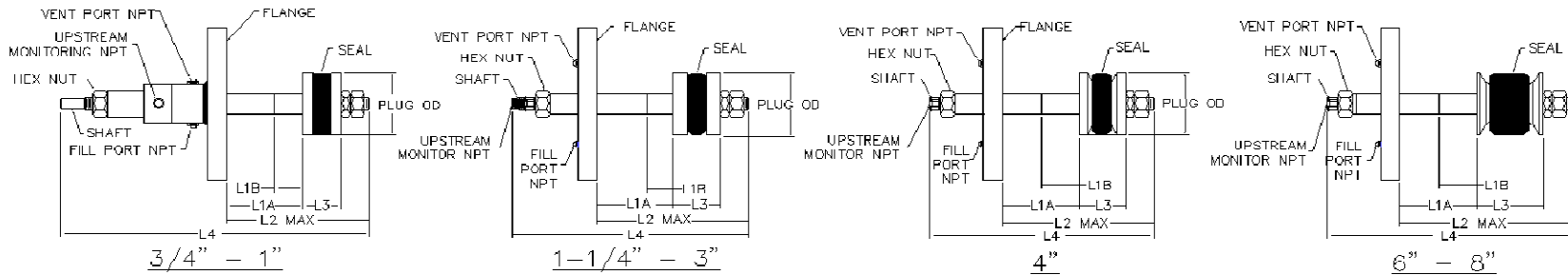


### HIGH LIFT FLANGE TP/WP (3/4"-8") TECHNICAL SPECIFICATIONS



FLANGE SIZE	ANSI FLANGE CLASS	PIPE SCHEDULE	PART NUMBER	PLUG OD		SEAL TO PIPE CLEARANCE		SHAFT OD		SHAFT ID	VENT & FILL PORT SIZE	UPSTREAM MONITOR SIZE	L1A WELDING PLUG		L1B TEST PLUG		L2 MAX		L3		L4		SHAFT HEX WRENCH SIZE	HEX NUT WRENCH SIZE	ESTIMATED SHIPPING WEIGHT 150 LB		ESTIMATED SHIPPING WEIGHT 300 LB		ESTIMATED SHIPPING WEIGHT 600 LB					
				(in)	(mm)	(in)	(mm)	(in)	(mm)				(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)			(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)	(lb)	(kg)
3/4" DN20	150-600	160	HLZ-075P160	56	14.2	38	1.3	3/8	9.5	3/16	4.8	1/8 F	1/8 F	12	304.8	3	76.2	14 1/4	362.0	1 1/4	31.8	24 11/16	627.1	n/a (4)	9/16	8	3.62	9	4.08	9	4.08			
		80	HLZ-075P80	87	17.0	.07	1.8																											
		40	HLZ-075P40	75	19.1	.07	1.8																											
1" DN25	150-600	xxs	HLZ-1PXXS	56	14.2	.04	1.0																											
		160	HLZ-1P160	71	18.0	.11	2.8																											
		80	HLZ-1P80	85	21.6	.11	2.8																											
1-1/4" DN32	150-600	40	HLZ-1P40	94	23.9	.11	2.8																											
		160	HLZ-125P160	103	26.2	.13	3.3																											
		80	HLZ-125P80	115	29.2	.13	3.3																											
1-1/2" DN40	150-600	160	HLZ-125P160	125	31.8	.13	3.3																											
		80	HLZ-15P80	117	29.7	.17	4.3																											
		40	HLZ-15P40	133	33.8	.17	4.3																											
2" DN50	150-600	xxs	HLZ-2PXXS	133	33.8	.17	4.3																											
		160	HLZ-2P160	144	36.5	.25	6.4																											
		80	HLZ-2P80	169	42.9	.25	6.4																											
2-1/2" DN65	150-600	40	HLZ-2P40	182	46.2	.25	6.4																											
		160	HLZ-25P160	200	50.8	.13	3.3																											
		80	HLZ-25P80	207	52.6	.25	6.4																											
3" DN80	150-600	40	HLZ-25P40	222	56.4	.25	6.4																											
		xxs	HLZ-3PXXS	207	52.6	.23	5.8																											
		160	HLZ-3P160	225	57.2	.38	9.7																											
4" DN100	150-600	40	HLZ-3P40	252	64.0	.38	9.7																											
		xxs	HLZ-4PXXS	269	68.3	.38	9.7																											
		160	HLZ-4P160	271	68.8	.44	11.2																											
6" DN150	150-600	120	HLZ-4P120	319	81.0	.44	11.2																											
		80	HLZ-4P80	339	86.1	.44	11.2																											
		40	HLZ-4P40	359	91.2	.44	11.2																											
8" DN200	150-600	160	HLZ-6P160	459	119.1	.50	12.7																											
		120	HLZ-6P120	500	127.0	.50	12.7																											
		80	HLZ-6P80	526	133.6	.50	12.7																											
8" DN200	150-600	40	HLZ-6P40	557	141.5	.50	12.7																											
		160	HLZ-8P160	631	160.3	.50	12.7																											
		xxs	HLZ-8PXXS	638	162.1	.50	12.7																											
8" DN200	150-600	140	HLZ-8P140	650	165.1	.50	12.7																											
		120	HLZ-8P120	669	169.9	.50	12.7																											
		100	HLZ-8P100	694	176.3	.50	12.7																											
8" DN200	150-600	80	HLZ-8P80	731	185.7	.50	12.7																											
		80	HLZ-8P80	713	181.1	.50	12.7																											
		40	HLZ-8P40	748	190.0	.50	12.7																											

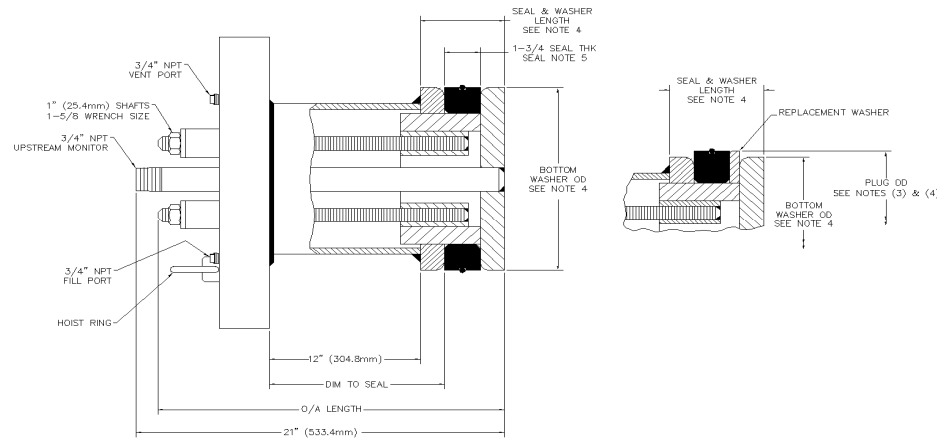
Notes:  
 (1) Standard Seal Material = Urethane  
 (2) Standard Operating Pressures:  
 Z = A = 1500lb = 450 psi  
 Z = B = 3000lb = 1125 psi  
 Z = D = 6000lb = 1125 psi  
 (3) Male NPT = M, Female NPT = F  
 (4) 3/4"-1" has round section for use of pipe wrench

QUESTIONS? Contact EST Customer Service at any of the following locations with questions.  
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 In Europe: tel: +31-172-418841, fax: +31-172-418849, e-mail: info@estgrp.nl  
 In Asia: tel: +65-6745-8560, fax: +65-6742-8700, e-mail: estasia@singnet.com.sg  
 On the Internet: http://estgroup.cwfc.com

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# HIGH LIFT FLANGE TPWP (10"-16") TECHNICAL SPECIFICATIONS



FLANGE SIZE	ANSI FLANGE CLASS (2)	PIPE SCHEDULE	PART NUMBER	BOTTOM WASHER OD (4)		PLUG OD (3) (4)		SHAFT QTY	DIM TO SEAL		O/A LENGTH		SEAL/WASHER LENGTH		SEAL O-RING DASH NO. (5)	ESTIMATED SHIPPING WEIGHT 150 LB		ESTIMATED SHIPPING WEIGHT 300 LB		ESTIMATED SHIPPING WEIGHT 600 LB	
				(in)	(mm)	(in)	(mm)		(in)	(mm)	(in)	(mm)	(in)	(mm)		(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
10" DN250	150 - 600	sch 100 (4)	HLZ-10P100	8.81	223.8	8.81	223.8	4	12 1/2	317.5	20 11/16	525.5	3 1/2	88.9	-445	175	79.3	230	104.2	339	153.6
		sch 80	HLZ-10P80			9.06	230.1						4	101.6	-446						
		sch 60xs	HLZ-10PX5			9.25	235.0						4	101.6	-446						
		sch 40/std	HLZ-10P40			9.52	241.8						4	101.6	-447						
		sch 30	HLZ-10P30			9.64	244.9						4	101.6	-447						
		sch 20	HLZ-10P20			9.75	247.7						4	101.6	-447						
12" DN300	150 - 600	sch 10s	HLZ-10P10S	10.87	276.1	9.92	252.0	4	12 1/2	317.5	20 11/16	525.5	4	101.6	-448	212	96.1	332	150.4	444	201.2
		sch 5	HLZ-10P5			9.98	253.5						4	101.6	-448						
		sch 80 (4)	HLZ-12P80			10.87	276.1						3 1/2	88.9	-449						
		sch 60	HLZ-12P60			11.13	282.7						4	101.6	-450						
		xs	HLZ-12PXS			11.25	285.8						4	101.6	-450						
		sch 40/std	HLZ-12P40			11.50	292.1						4	101.6	-451						
14" DN350	150 - 600	sch 30	HLZ-12P30	11.00	279.4	11.59	294.4	6	12 1/2	317.5	20 15/16	531.8	4	101.6	-451	296	134.1	386	174.9	530	240.1
		sch 20	HLZ-12P20			11.75	298.5						4	101.6	-451						
		sch 10s/5	HLZ-12P10S			11.94	303.3						4	101.6	-452						
		sch 140 (4)	HLZ-14P140			11.00	279.4						3 3/4	95.3	N/A						
		sch 120	HLZ-14P120			11.31	287.3						4 3/8	111.1	N/A						
		sch 100	HLZ-14P100			11.62	295.1						4 3/8	111.1	N/A						
16" DN400	150 - 600	sch 80	HLZ-14P80	13.06	331.7	12.00	304.8	8	12 1/2	317.5	20 15/16	531.8	4 3/8	111.1	N/A	397	179.9	528	239.2	725	328.5
		sch 60	HLZ-14P60			12.31	312.7						4 3/8	111.1	N/A						
		xs	HLZ-14PXS			12.50	317.5						4 3/8	111.1	N/A						
		sch 40	HLZ-14P40			12.62	320.5						4 3/8	111.1	N/A						
		sch 30/std	HLZ-14PSTD			12.75	323.9						4 3/8	111.1	N/A						
		sch 20	HLZ-14P20			12.88	327.2						4 3/8	111.1	N/A						
16" DN400	150 - 600	sch 10/10s/5	HLZ-14P10	13.06	331.7	13.12	333.2	8	12 1/2	317.5	20 15/16	531.8	4 3/8	111.1	N/A	397	179.9	528	239.2	725	328.5
		sch 120 (4)	HLZ-16P120			13.06	331.7						3 3/4	95.3	N/A						
		sch 100	HLZ-16P100			13.44	341.4						4 3/8	111.1	N/A						
		sch 80	HLZ-16P80			13.81	350.8						4 3/8	111.1	N/A						
		sch 60	HLZ-16P60			14.19	360.4						4 3/8	111.1	N/A						
		sch 40xs	HLZ-16P40			14.50	368.3						4 3/8	111.1	N/A						
16" DN400	150 - 600	sch 30/std	HLZ-16PSTD	13.06	331.7	14.75	374.7	8	12 1/2	317.5	20 15/16	531.8	4 3/8	111.1	N/A	397	179.9	528	239.2	725	328.5
		sch 20	HLZ-16P20			14.88	378.0						4 3/8	111.1	N/A						
		sch 10/10s/5	HLZ-16P10			15.12	384.0						4 3/8	111.1	N/A						

**Notes:**

- (1) Standard Seal Material = Urethane
- (2) Standard Operating Pressure:  
10"-24" = Z = A = 150lb = 450 psi  
10"-24" = Z = B = 300lb = 1125 psi  
10"-12" = Z = D = 600lb = 2250 psi  
14"-24" = Z = D = 600lb = 1125 psi
- (3) Seal to pipe clearance is approximately 1/2", clearance may be slightly smaller on plugs that accommodate more than one schedule size.
- (4) Replacement washers are required on all schedule sizes except for the smallest one for each pipe size
- (5) 10" & 12" Seals include an external o-ring

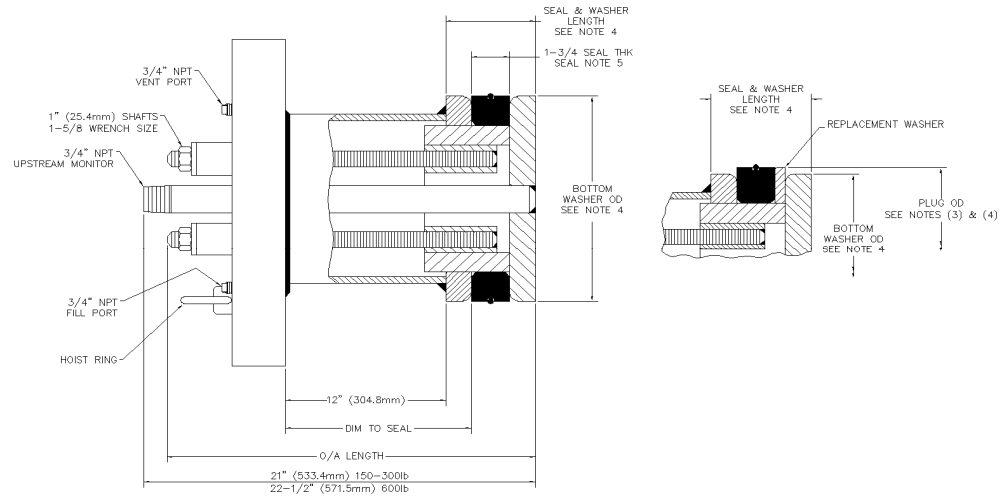
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# HIGH LIFT FLANGE TP/WP (18"-24") TECHNICAL SPECIFICATIONS



FLANGE SIZE	ANSI FLANGE CLASS (2)	PIPE SCHEDULE	PART NUMBER	BOTTOM WASHER OD (4)		PLUG OD (3) (4)		SHAFT QTY	DIM TO SEAL		150 - 300lb O/A LENGTH		600 lb O/A LENGTH		SEAL/WASHER LENGTH		ESTIMATED SHIPPING WEIGHT 150 LB		ESTIMATED SHIPPING WEIGHT 300 LB		ESTIMATED SHIPPING WEIGHT 600 LB	
				(in)	(mm)	(in)	(mm)		(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
18" DN450	150 - 60	sch 120 (4)	HLZ-18P120	14.75	374.7	14.75	374.7	8	12 1/2	317.5	21 3/16	538.2	22 3/8	568.3	4	101.6	497	225.2	656	297.2	890	403.3
		sch 100	HLZ-18P100			15.19	385.8								4 5/8	117.5						
		sch 80	HLZ-18P80			15.62	396.7								4 5/8	117.5						
		sch 60	HLZ-18P60			16.00	406.4								4 5/8	117.5						
		sch 40	HLZ-18P40			16.38	416.1								4 5/8	117.5						
		xs	HLZ-18PXs			16.50	419.1								4 5/8	117.5						
		sch 30	HLZ-18P30			16.62	422.1								4 5/8	117.5						
		std	HLZ-18PSTD			16.75	425.5								4 5/8	117.5						
		sch 20	HLZ-18P20			16.88	428.8								4 5/8	117.5						
		sch 10/10s/s	HLZ-18P10			17.12	434.8								4 5/8	117.5						
		sch 100 (4)	HLZ-20P100			16.94	430.3								3 3/4	95.3						
		sch 80	HLZ-20P80			17.44	443.0								4 3/8	111.1						
sch 60	HLZ-20P60	17.88	454.2	4 3/8	111.1																	
sch 40	HLZ-20P40	18.31	465.1	4 3/8	111.1																	
sch 30/xs	HLZ-20PXs	18.50	469.9	4 3/8	111.1																	
sch 20/std	HLZ-20PSTD	18.75	476.3	4 3/8	111.1																	
sch 10/10s/s	HLZ-20P10	19.06	484.1	4 3/8	111.1																	
24" DN600	150 - 600	sch 120 (4)	HLZ-24P120	19.88	505.0	19.88	505.0	12	12 3/4	323.9	20 15/16	531.81	22 1/8	561.98	4	101.6	932	422.3	1255	568.6	1750	792.9
		sch 100	HLZ-24P100			20.44	519.2								4 3/4	120.7						
		sch 80	HLZ-24P80			21.06	534.9								4 3/4	120.7						
		sch 60	HLZ-24P60			21.56	547.6								4 3/4	120.7						
		sch 40	HLZ-24P40			22.12	561.8								4 3/4	120.7						
		sch 30	HLZ-24P30			22.38	568.5								4 3/4	120.7						
		xs	HLZ-24PXs			22.50	571.5								4 3/4	120.7						
		sch 20/std	HLZ-24PSTD			22.75	577.9								4 3/4	120.7						
		sch 10/5	HLZ-24P10			23.06	585.7								4 3/4	120.7						

- Notes:  
 (1) Standard Seal Material = Urethane  
 (2) Standard Operating Pressure:  
 10"-24" = Z = A = 150lb = 450 psi  
 10"-24" = Z = B = 300lb = 1125 psi  
 10"-12" = Z = D = 600lb = 2250 psi  
 14"-24" = Z = D = 600lb = 1125 psi  
 (3) Seal to pipe clearance is approximately 1/2", clearance may be slightly smaller on plugs that accommodate more than one schedule size.  
 (4) Replacement washers are required on all schedule sizes except for the smallest one for each pipe size  
 (5) 10" & 12" Seals include an external o-ring

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