



1-3
TR Tie-Rod Cylinders
(INCH)



4-5
WCC Welded Cylinders
(INCH)



6-7
WCS Welded Cylinders
(INCH)



8-10
WCT Welded Cylinders
(INCH)



11
Mobile Pivot Pins And Clips



12
ZS Welded Cylinders
(MILLIMETER)



13
WCS Welded Cylinders
(MILLIMETER)



14
WCC Welded Cylinders
(MILLIMETER)

APPLICATION



TR TIE ROD CYLINDERS

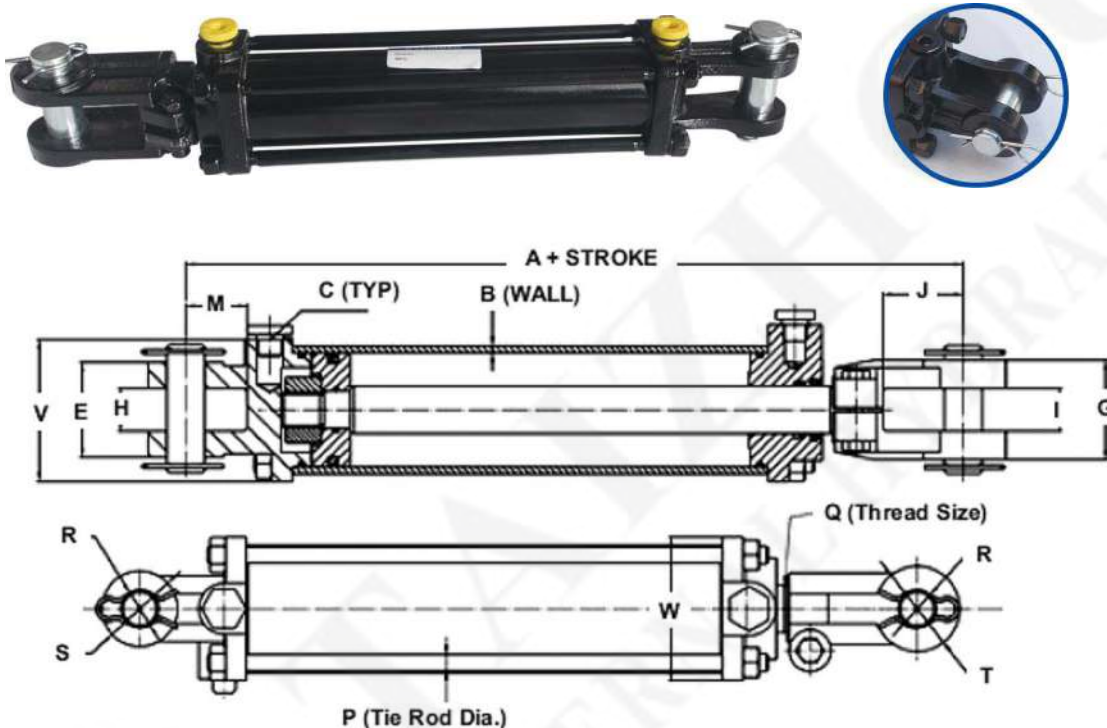
(4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

FEATURES:

Intended Use: Double-acting applications **Tube:** Precision honed steel **Rod:** Hard chrome plated

Piston: Ductile iron **Gland:** Ductile iron, drilled oil passages

End Mounts: Ductile iron female clevises with pins and clips included **Seal Brand:** Hallite



Dimensional Data in Inches (Millimeters)

BORE	DIMENSIONS															
		B	C	E	G	H	I	J	M	P	Q	R	S	T	V	W
2.000 (50.8)	10.250 (260.4)	0.189 (4.80)	3/8NPT	2.440 (62)	2.677 (68)	1.142 (30)	1.180 (30)	2.125 (54.0)	2.000 (50.8)	0.394 (10)	1 1/8-12UNF	1.016 (25.8)	1.772 (45)	2.086 (52)	3.220 (83)	2.875 (73)
2.500 (63.5)	10.250 (260.4)	0.189 (4.80)	3/8NPT	2.440 (62)	2.677 (68)	1.142 (30)	1.180 (30)	2.125 (54.0)	2.000 (50.8)	0.394 (10)	1 1/8-12UNF	1.016 (25.8)	1.772 (45)	2.086 (52)	3.220 (83)	2.875 (73)
3.000 (76.2)	10.250 (260.4)	0.189 (4.80)	1/2NPT	2.717 (70)	2.677 (68)	1.142 (30)	1.180 (30)	2.125 (54.0)	2.000 (50.8)	0.472 (12)	1 1/4-12UNF	1.016 (25.8)	2.031 (51.6)	2.086 (52)	3.858 (98)	3.780 (96.0)
3.500 (88.9)	10.250 (260.4)	0.189 (4.80)	1/2NPT	2.717 (69)	2.677 (68)	1.142 (30)	1.180 (30)	2.125 (54.0)	2.000 (50.8)	0.472 (14)	1 1/4-12UNF	1.016 (25.8)	2.031 (51.6)	2.086 (52)	4.331 (110)	3.780 (96.0)
4.000 (101.6)	10.250 (260.4)	0.189 (4.8)	1/2NPT	2.717 (69)	2.717 (69)	1.142 (30)	1.180 (30)	2.125 (54.0)	2.000 (50.8)	0.630 (16)	1 1/4-12UNF	1.016 (25.8)	2.126 (55)	2.086 (52)	5.157 (131)	5.118 (130)
5.000 (127.0)	12.250 (311.15)	0.250 (6.35)	1/2NPT	2.992 (76)	2.913 (74)	1.26 (32)	1.26 (32)	2.125 (54.0)	2.118 (53.80)	0.72 (18.28)	1 1/4-12UNF	1.265 (32.13)	2.756 (70)	2.756 (70)	6.500 (165.10)	6.500 (165.10)

TR TIE ROD CYLINDERS

(4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

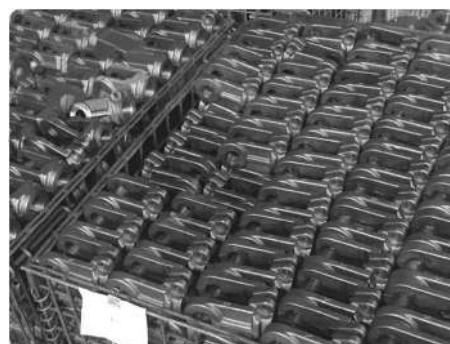
缸径行程-杆径

ARTICLE	BORE INCH	STROKE INCH	ROD DIA INCH	LENGTH MIN INCH	LENGTH MAX INCH	RETRA PIN DIA	PORT	WEIGHT LBS	WEIGHT KG
TR2004-112	2	4	1.1/8	14.1/4	18.1/4	1	3/8NPT	14.30	6.5
TR2006-112	2	6	1.1/8	16.1/4	22.1/4	1	3/8NPT	15.84	7.2
TR2008-112	2	8	1.1/8	18.1/4	26.1/4	1	3/8NPT	17.60	8.0
TR2010-112	2	10	1.1/8	20.1/4	30.1/4	1	3/8NPT	18.70	8.5
TR2012-112	2	12	1.1/8	22.1/4	34.1/4	1	3/8NPT	20.24	9.2
TR2014-112	2	14	1.1/8	24.1/4	38.1/4	1	3/8NPT	22.00	10.0
TR2016-112	2	16	1.1/8	26.1/4	42.1/4	1	3/8NPT	23.54	10.7
TR2018-112	2	18	1.1/8	28.1/4	46.1/4	1	3/8NPT	25.08	11.4
TR2020-112	2	20	1.1/8	30.1/4	50.1/4	1	3/8NPT	26.62	12.1
TR2024-112	2	24	1.1/8	34.1/4	58.1/4	1	3/8NPT	28.50	12.9
TR2030-112	2	30	1.1/8	40.1/4	70.1/4	1	3/8NPT	31.50	14.3
TR2036-112	2	36	1.1/8	46.1/4	82.1/4	1	3/8NPT	33.00	15.0
TR2048-112	2	48	1.1/8	58.1/4	106.1/4	1	3/8NPT	35.00	15.9
TR2504-112	2.5	4	1.1/8	14.1/4	18.1/4	1	3/8NPT	16.28	7.4
TR2506-112	2.5	6	1.1/8	16.1/4	22.1/4	1	3/8NPT	18.04	8.2
TR2508-112	2.5	8	1.1/8	18.1/4	26.1/4	1	3/8NPT	20.24	9.2
TR2510-112	2.5	10	1.1/8	20.1/4	30.1/4	1	3/8NPT	21.34	9.7
TR2512-112	2.5	12	1.1/8	22.1/4	34.1/4	1	3/8NPT	23.10	10.5
TR2514-112	2.5	14	1.1/8	24.1/4	38.1/4	1	3/8NPT	24.86	11.3
TR2516-112	2.5	16	1.1/8	26.1/4	42.1/4	1	3/8NPT	26.62	12.1
TR2518-112	2.5	18	1.1/8	28.1/4	46.1/4	1	3/8NPT	28.38	12.9
TR2520-112	2.5	20	1.1/8	30.1/4	50.1/4	1	3/8NPT	30.14	13.7
TR2524-112	2.5	24	1.1/8	34.1/4	58.1/4	1	3/8NPT	33.66	15.3
TR2530-112	2.5	30	1.1/8	40.1/4	70.1/4	1	3/8NPT	39.66	18.0
TR2536-112	2.5	36	1.1/8	46.1/4	82.1/4	1	3/8NPT	38.25	17.3
TR2548-112	2.5	48	1.1/8	58.1/4	106.1/4	1	3/8NPT	50.25	22.8
TR3004-125	3	4	1.1/4	14.1/4	18.1/4	1	1/2NPT	21.56	9.8
TR3006-125	3	6	1.1/4	16.1/4	22.1/4	1	1/2NPT	23.76	10.8
TR3008-125	3	8	1.1/4	18.1/4	26.1/4	1	1/2NPT	26.62	12.1
TR3010-125	3	10	1.1/4	20.1/4	30.1/4	1	1/2NPT	28.16	12.8
TR3012-125	3	12	1.1/4	22.1/4	34.1/4	1	1/2NPT	30.36	13.8
TR3014-125	3	14	1.1/4	24.1/4	38.1/4	1	1/2NPT	32.56	14.8
TR3016-125	3	16	1.1/4	26.1/4	42.1/4	1	1/2NPT	34.76	15.8
TR3018-125	3	18	1.1/4	28.1/4	46.1/4	1	1/2NPT	36.96	16.8
TR3020-125	3	20	1.1/4	30.1/4	50.1/4	1	1/2NPT	39.16	17.7
TR3024-125	3	24	1.1/4	34.1/4	58.1/4	1	1/2NPT	43.34	19.6
TR3030-125	3	30	1.1/4	40.1/4	70.1/4	1	1/2NPT	48.00	21.8
TR3036-150	3	36	1.1/2	46.1/4	82.1/4	1	1/2NPT	54.55	24.7
TR3048-150	3	48	1.1/2	58.1/4	106.1/4	1	1/2NPT	74.69	33.8
TR3504-125	3.5	4	1.1/4	14.1/4	18.1/4	1	1/2NPT	23.32	10.6
TR3506-125	3.5	6	1.1/4	16.1/4	22.1/4	1	1/2NPT	25.52	11.6
TR3508-125	3.5	8	1.1/4	18.1/4	26.1/4	1	1/2NPT	28.82	13.1
TR3510-125	3.5	10	1.1/4	20.1/4	30.1/4	1	1/2NPT	29.92	13.6
TR3512-125	3.5	12	1.1/4	22.1/4	34.1/4	1	1/2NPT	32.34	14.7
TR3514-125	3.5	14	1.1/4	24.1/4	38.1/4	1	1/2NPT	34.76	15.8

TR TIE ROD CYLINDERS

(4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

ARTICLE	BORE INCH	STROKE INCH	ROD DIA INCH	LENGTH MIN INCH	LENGTH MAX INCH	RETRA PIN DIA	PORT	WEIGHT LBS	WEIGHT KG
TR3516-125	3.5	16	1.1/4	26.1/4	42.1/4	1	1/2NPT	37.18	16.8
TR3518-125	3.5	18	1.1/4	28.1/4	46.1/4	1	1/2NPT	39.60	17.9
TR3520-125	3.5	20	1.1/4	30.1/4	50.1/4	1	1/2NPT	42.02	19.0
TR3524-150	3.5	24	1.1/2	34.1/4	58.1/4	1	1/2NPT	51.07	23.1
TR3530-150	3.5	30	1.1/2	40.1/4	70.1/4	1	1/2NPT	55.00	24.9
TR3532-150	3.5	32	1.1/2	42.1/4	74.1/4	1	1/2NPT	58.00	26.3
TR3536-150	3.5	36	1.1/2	46.1/4	82.1/4	1	1/2NPT	62.00	28.1
TR3548-150	3.5	48	1.1/2	58.1/4	106.1/4	1	1/2NPT	74.69	33.8
TR4004-125	4	4	1.1/4	14.1/4	18.1/4	1	1/2NPT	29.48	13.4
TR4006-125	4	6	1.1/4	16.1/4	22.1/4	1	1/2NPT	33.6	15.2
TR4008-125	4	8	1.1/4	18.1/4	26.1/4	1	1/2NPT	35.16	15.9
TR4010-125	4	10	1.1/4	20.1/4	30.1/4	1	1/2NPT	37.84	17.1
TR4012-125	4	12	1.1/4	22.1/4	34.1/4	1	1/2NPT	40.70	18.4
TR4014-125	4	14	1.1/4	24.1/4	38.1/4	1	1/2NPT	43.56	19.7
TR4016-125	4	16	1.1/4	26.1/4	42.1/4	1	1/2NPT	46.42	21.0
TR4018-150	4	18	1.1/2	28.1/4	46.1/4	1	1/2NPT	50.60	22.9
TR4020-150	4	20	1.1/2	30.1/4	50.1/4	1	1/2NPT	53.46	24.2
TR4024-150	4	24	1.1/2	34.1/4	58.1/4	1	1/2NPT	59.18	26.8
TR4024-200	4	24	2	34.1/4	58.1/4	1	1/2NPT	68.00	30.8
TR4030-175	4	30	1.3/4	40.1/4	70.1/4	1	1/2NPT	75.00	34.0
TR4030-200	4	30	2	40.1/4	70.1/4	1	1/2NPT	78.00	35.3
TR4036-175	4	36	1.3/4	46.1/4	82.1/4	1	1/2NPT	82.00	37.2
TR4040-175	4	40	1.3/4	50.1/4	86.1/4	1	1/2NPT	90.00	40.8
TR4048-175	4	48	1.3/4	58.1/4	94.1/4	1	1/2NPT	98.00	44.4
TR5004-150	5	4	1.1/2	16.1/4	16.1/4	1	1/2NPT	53.46	24.2
TR5006-150	5	6	1.1/2	18.1/4	18.1/4	1	1/2NPT	56.76	25.7
TR5008-150	5	8	1.1/2	20.1/4	20.1/4	1	1/2NPT	61.16	27.7
TR5010-150	5	10	1.1/2	22.1/4	32.1/4	1	1/2NPT	63.36	28.7
TR5012-200	5	12	2	24.1/4	34.1/4	1	1/2NPT	73.04	33.1
TR5014-200	5	14	2	26.1/4	40.1/4	1	1/2NPT	77.00	34.9
TR5016-200	5	16	2	28.1/4	44.1/4	1	1/2NPT	81.18	36.8
TR5018-200	5	18	2	30.1/4	48.1/4	1	1/2NPT	85.14	38.6
TR5020-200	5	20	2	32.1/4	52.1/4	1	1/2NPT	89.10	40.4
TR5024-200	5	24	2	36.1/4	60.1/4	1	1/2NPT	97.24	44.1
TR5030-200	5	30	2	42.1/4	72.1/4	1	1/2NPT	109.56	49.7
TR5036-225	5	36	2.1/4	48.1/4	84.1/4	1	1/2NPT	163.00	73.9
TR5048-225	5	48	2.1/4	60.1/4	108.1/4	1	1/2NPT	186.00	84.3



WCC WELDED CYLINDER WITH CLEVIS MOUNTES (4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

FEATURES:

Intended Use: Double-acting applications

Rod: High tensile, hard chrome plated rod

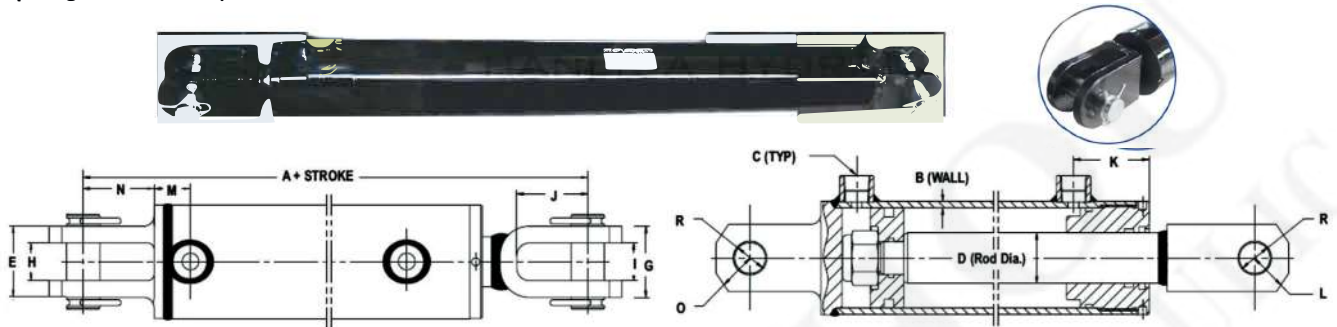
Clip: High tensile zinc-plated steel

Tube: High tensile cold drawn tube, precision honed

End Mounts: Cast female clevises with pins and clips included Pin and Pin

Seal Brand: Hallite

Piston&Gland: Ductile iron



Dimensional Data in Inches (Millimeters)

BORE	DIMENSIONS														
	A	B	C	D	E	G	H	I	J	K	L	M	N	O	R
2.000 (50.8)	10.25 (260.35)	0.25 (6.35)	3/8NPT	1.25 (31.75)	2.48 (63)	2.48 (63)	1.125 (28.57)	1.125 (28.57)	2.125 (53.9)	2.008 (51)	1.26 (32)	1.535 (39)	2.125 (53.9)	1.26 (32)	1.012 (25.7)
2.500 (63.5)	10.25 (260.35)	0.25 (6.35)	3/8NPT	1.5 (38.1)	2.48 (63)	2.48 (63)	1.125 (28.57)	1.125 (28.57)	2.125 (53.9)	2.008 (51)	1.26 (32)	1.535 (39)	2.125 (53.9)	1.26 (32)	1.012 (25.7)
3.000 (76.2)	10.25 (260.35)	0.25 (6.35)	1/2NPT	1.5 (38.1)	2.48 (63)	2.48 (63)	1.125 (28.57)	1.125 (28.57)	2.125 (53.9)	2.008 (51)	1.26 (32)	1.535 (39)	2.125 (53.9)	1.26 (32)	1.012 (25.7)
3.500 (88.9)	10.25 (260.35)	0.25 (6.35)	1/2NPT	1.75 (44.45)	2.48 (63)	2.48 (63)	1.125 (28.57)	1.125 (28.57)	2.244 (57)	2.008 (51)	1.377 (35)	1.535 (39)	2.047 (52)	1.378 (35)	1.012 (25.7)
4.000 (101.6)	10.25 (260.35)	0.25 (6.35)	1/2NPT	2 (50.8)	2.48 (63)	2.48 (63)	1.125 (28.57)	1.125 (28.57)	2.244 (57)	2.283 (58)	1.377 (35)	1.102 (28)	2.047 (52)	1.378 (35)	1.012 (25.7)

缸径行程-杆径

ARTICLE	BORE INCH	STROKE INCH	ROD DIA INCH	LENGTH MIN INCH	LENGTH MAX INCH	PIN DIA INCH	PORT	WEIGHT LBS	WEIGHT KG
WCC2004-125	2	4	1.1/4	14.25	18.25	1	3/8NPT	12.79	5.8
WCC2006-125	2	6	1.1/4	16.25	22.25	1	3/8NPT	14.55	6.6
WCC2008-125	2	8	1.1/4	18.25	26.25	1	3/8NPT	16.32	7.4
WCC2010-125	2	10	1.1/4	20.25	30.25	1	3/8NPT	17.86	8.1
WCC2012-125	2	12	1.1/4	22.25	34.25	1	3/8NPT	19.40	8.8
WCC2014-125	2	14	1.1/4	24.25	38.25	1	3/8NPT	21.17	9.6
WCC2016-125	2	16	1.1/4	26.25	42.25	1	3/8NPT	22.93	10.4
WCC2018-125	2	18	1.1/4	28.25	46.25	1	3/8NPT	24.48	11.1
WCC2020-125	2	20	1.1/4	30.25	50.25	1	3/8NPT	26.24	11.9
WCC2024-125	2	24	1.1/4	34.25	58.25	1	3/8NPT	29.55	13.4
WCC2028-125	2	28	1.1/4	38.25	66.25	1	3/8NPT	32.85	14.9
WCC2030-125	2	30	1.1/4	40.25	70.25	1	3/8NPT	34.62	15.7
WCC2032-125	2	32	1.1/4	42.25	74.25	1	3/8NPT	36.16	16.4
WCC2034-125	2	34	1.1/4	44.25	78.25	1	3/8NPT	37.93	17.2
WCC2036-125	2	36	1.1/4	46.25	82.25	1	3/8NPT	36.69	16.6
WCC2504-150	2.5	4	1.1/2	14.25	18.25	1	1/2NPT	16.98	7.7
WCC2506-150	2.5	6	1.1/2	16.25	22.25	1	1/2NPT	19.18	8.7
WCC2508-150	2.5	8	1.1/2	18.25	28.25	1	1/2NPT	21.39	9.7
WCC2510-150	2.5	10	1.1/2	20.25	30.25	1	1/2NPT	23.37	10.6
WCC2512-150	2.5	12	1.1/2	22.25	34.25	1	1/2NPT	25.58	11.6

WCC WELDED CYLINDERS (4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

缸径行程-杆径

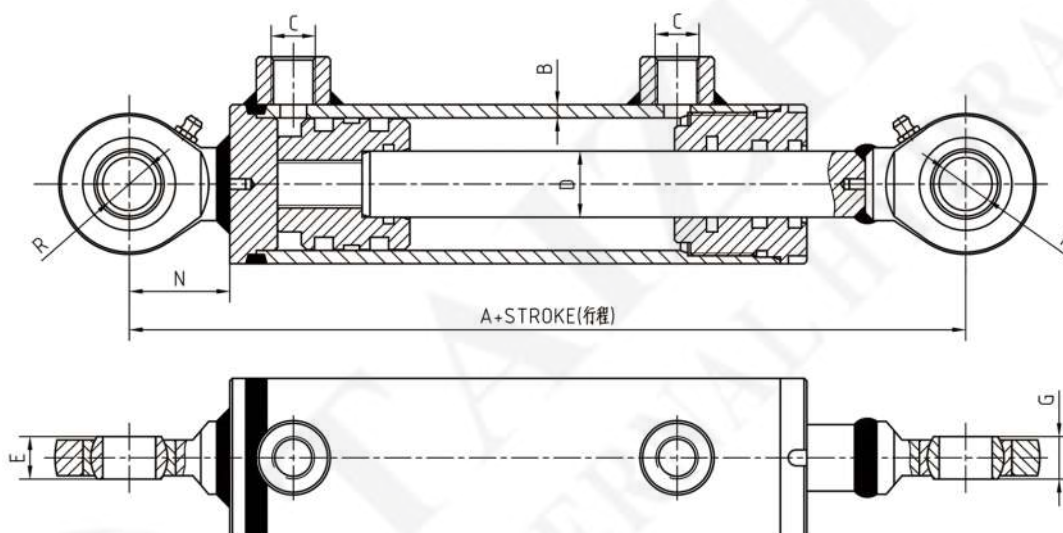
ARTICLE	BORE INCH	STROKE INCH	ROD DIA INCH	LENGTH MIN INCH	LENGTH MAX INCH	PINDIA INCH	PORT	WEIGHT LBS	WEIGHT KG
WCC2514-150	2.5	14	1.1/2	24.25	38.25	1	1/2NPT	27.78	12.6
WCC2516-150	2.5	16	1.1/2	26.25	42.25	1	1/2NPT	29.77	13.5
WCC2518-150	2.5	18	1.1/2	28.25	46.25	1	1/2NPT	31.97	14.5
WCC2520-150	2.5	20	1.1/2	30.25	50.25	1	1/2NPT	34.18	15.5
WCC2524-150	2.5	24	1.1/2	34.25	58.25	1	1/2NPT	38.37	17.4
WCC2528-150	2.5	28	1.1/2	38.25	66.25	1	1/2NPT	42.56	19.3
WCC2530-150	2.5	30	1.1/2	40.25	70.25	1	1/2NPT	44.76	20.3
WCC2532-150	2.5	32	1.1/2	42.25	74.25	1	1/2NPT	46.97	21.3
WCC2534-150	2.5	34	1.1/2	44.25	78.25	1	1/2NPT	48.95	22.2
WCC2536-150	2.5	36	1.1/2	46.25	82.25	1	1/2NPT	51.16	23.2
WCC3004-150	3	4	1.1/2	14.25	18.25	1	1/2NPT	21.83	9.9
WCC3006-150	3	6	1.1/2	16.25	22.25	1	1/2NPT	24.26	11.0
WCC3008-150	3	8	1.1/2	18.25	28.25	1	1/2NPT	26.90	12.2
WCC3010-150	3	10	1.1/2	20.25	30.25	1	1/2NPT	29.11	13.2
WCC3012-150	3	12	1.1/2	22.25	34.25	1	1/2NPT	31.53	14.3
WCC3014-150	3	14	1.1/2	24.25	38.25	1	1/2NPT	33.96	15.4
WCC3016-150	3	16	1.1/2	26.25	42.25	1	1/2NPT	36.60	16.6
WCC3018-150	3	18	1.1/2	28.25	46.25	1	1/2NPT	39.03	17.7
WCC3020-150	3	20	1.1/2	30.25	50.25	1	1/2NPT	41.45	18.8
WCC3024-150	3	24	1.1/2	34.25	58.25	1	1/2NPT	46.31	21.0
WCC3028-150	3	28	1.1/2	38.25	66.25	1	1/2NPT	51.16	23.2
WCC3030-150	3	30	1.1/2	40.25	70.25	1	1/2NPT	53.58	24.3
WCC3032-150	3	32	1.1/2	42.25	74.25	1	1/2NPT	56.23	25.5
WCC3034-150	3	34	1.1/2	44.25	78.25	1	1/2NPT	58.65	26.6
WCC3036-150	3	36	1.1/2	46.25	82.25	1	1/2NPT	61.08	27.7
WCC3504-175	3.5	4	1.3/4	14.25	18.25	1	1/2NPT	26.24	11.9
WCC3506-175	3.5	6	1.3/4	16.25	22.25	1	1/2NPT	29.33	13.3
WCC3508-175	3.5	8	1.3/4	18.25	28.25	1	1/2NPT	32.41	14.7
WCC3510-175	3.5	10	1.3/4	20.25	30.25	1	1/2NPT	35.50	16.1
WCC3512-175	3.5	12	1.3/4	22.25	34.25	1	1/2NPT	38.59	17.5
WCC3514-175	3.5	14	1.3/4	24.25	38.25	1	1/2NPT	41.67	18.9
WCC3516-175	3.5	16	1.3/4	26.25	42.25	1	1/2NPT	44.76	20.3
WCC3518-175	3.5	18	1.3/4	28.25	46.25	1	1/2NPT	48.07	21.8
WCC3520-175	3.5	20	1.3/4	30.25	50.25	1	1/2NPT	51.16	23.2
WCC3524-175	3.5	24	1.3/4	34.25	58.25	1	1/2NPT	57.33	26.0
WCC3528-175	3.5	28	1.3/4	38.25	66.25	1	1/2NPT	63.50	28.8
WCC3530-175	3.5	30	1.3/4	40.25	70.25	1	1/2NPT	66.59	30.2
WCC3532-175	3.5	32	1.3/4	42.25	74.25	1	1/2NPT	69.90	31.7
WCC3534-175	3.5	34	1.3/4	44.25	78.25	1	1/2NPT	72.99	33.1
WCC3536-175	3.5	36	1.3/4	46.25	82.25	1	1/2NPT	76.07	34.5
WCC4004-200	4	4	2	14.25	18.25	1	1/2NPT	30.65	13.9
WCC4006-200	4	6	2	16.25	22.25	1	1/2NPT	34.40	15.6
WCC4008-200	4	8	2	18.25	28.25	1	1/2NPT	39.25	17.8
WCC4010-200	4	10	2	20.25	30.25	1	1/2NPT	42.12	19.1
WCC4012-200	4	12	2	22.25	34.25	1	1/2NPT	46.08	20.9
WCC4014-200	4	14	2	24.25	38.25	1	1/2NPT	50.05	22.7
WCC4016-200	4	16	2	26.25	42.25	1	1/2NPT	53.80	24.4
WCC4018-200	4	18	2	28.25	46.25	1	1/2NPT	57.77	26.2
WCC4020-200	4	20	2	30.25	50.25	1	1/2NPT	61.52	27.9
WCC4024-200	4	24	2	34.25	58.25	1	1/2NPT	69.46	31.5
WCC4028-200	4	28	2	38.25	66.25	1	1/2NPT	77.18	35.0
WCC4030-200	4	30	2	40.25	70.25	1	1/2NPT	81.14	36.8
WCC4032-200	4	32	2	42.25	74.25	1	1/2NPT	84.89	38.5
WCC4034-200	4	34	2	44.25	78.25	1	1/2NPT	88.86	40.3
WCC4036-200	4	36	2	46.25	82.25	1	1/2NPT	92.61	42.0
WCC5006-250	5	6	2.1/2	18.25	24.25	1	1/2NPT	68.36	31.0
WCC5008-250	5	8	2.1/2	20.25	28.25	1	1/2NPT	72.77	33.0
WCC5010-250	5	10	2.1/2	22.25	32.25	1	1/2NPT	77.18	35.0
WCC5012-250	5	12	2.1/2	24.25	36.25	1	1/2NPT	81.59	37.0

WCS WELDED CYLINDERS WITH SWIVAL BALL MOUNTES

(4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

FEATURES:

Intended Use: Double-acting applications
Tube: Steel tube honed or skived for extended seal life
Rod: Ground and polished hard chromed plated rod
Piston & Gland: Ductile iron
End Mounts: Sphenical
Seal Brand: Hallite



Dimensional Data in Inches (Millimeters)

BORE	DIMENSIONS							
	A	B	C	D	E	G	N	R
1.000 (25.4)	6.299 (160)	0.200 (5.08)	1/4NPT	0.630 (16.0)	0.394 (10)	0.394 (10)	1.063 (27)	0.472 (12)
1.500 (38.1)	7.48 (190)	0.200 (5.08)	1/4NPT	1.000 (25.4)	0.63 (16)	0.63 (16)	1.496 (38)	0.787 (20)
2.000 (50.8)	8.8 (223.52)	0.25 (6.35)	3/8NPT	1.250 (31.75)	0.787 (20)	0.787 (20)	1.772 (45)	0.984 (25)
2.500 (63.5)	8.8 (223.52)	0.25 (6.35)	3/8NPT	1.500 (38.1)	0.787 (20)	0.787 (20)	1.772 (45)	0.984 (25)
3.000 (76.2)	8.8 (223.52)	0.25 (6.35)	1/2NPT	1.500 (38.1)	0.787 (20)	0.787 (20)	1.772 (45)	0.984 (25)

WCS WELDED CYLINDERS

(4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

缸径行程-杆径

ARTICLE	BORE INCH	STROKE INCH	ROD DIA INCH	LENGTH MIN INCH	LENGTH MAX INCH	PIN DIA INCH	PORT	WEIGHT LBS	WEIGHT KG
WCS1004-062	1	4	0.625	10.299	14.299	0.472	1/4NPT	5	2.3
WCS1006-062	1	6	0.625	12.299	18.299	0.472	1/4NPT	5	2.3
WCS1008-062	1	8	0.625	14.299	22.299	0.472	1/4NPT	6	2.7
WCS1010-062	1	10	0.625	16.299	26.299	0.472	1/4NPT	7	3.2
WCS1012-062	1	12	0.625	18.299	30.299	0.472	1/4NPT	7	3.2
WCS1504-100	1.5	4	1	11.48	15.48	0.787	1/4NPT	6	2.7
WCS1506-100	1.5	6	1	13.48	19.48	0.787	1/4NPT	7	3.2
WCS1508-100	1.5	8	1	15.48	23.48	0.787	1/4NPT	9	4.1
WCS1510-100	1.5	10	1	17.48	27.48	0.787	1/4NPT	10	4.5
WCS1512-100	1.5	12	1	19.48	31.48	0.787	1/4NPT	11	5.0
WCS1514-100	1.5	14	1	21.48	35.48	0.787	1/4NPT	12	5.4
WCS2006-125	2	6	1.1/4	14.8	20.8	0.984	3/8NPT	15	6.8
WCS2008-125	2	8	1.1/4	16.8	24.8	0.984	3/8NPT	16	7.3
WCS2010-125	2	10	1.1/4	18.8	28.8	0.984	3/8NPT	17	7.7
WCS2012-125	2	12	1.1/4	20.8	32.8	0.984	3/8NPT	19	8.6
WCS2020-125	2	20	1.1/4	28.8	48.8	0.984	3/8NPT	24	10.9
WCS2024-125	2	24	1.1/4	32.8	56.8	0.984	3/8NPT	27	12.2
WCS2030-125	2	30	1.1/4	38.8	68.8	0.984	3/8NPT	32	14.5
WCS2036-125	2	36	1.1/4	44.8	80.8	0.984	3/8NPT	43	19.5
WCS2506-150	2.5	6	1.1/2	14.8	20.8	0.984	3/8NPT	17	7.7
WCS2508-150	2.5	8	1.1/2	16.8	24.8	0.984	3/8NPT	19	8.6
WCS2510-150	2.5	10	1.1/2	18.8	28.8	0.984	3/8NPT	21	9.5
WCS2512-150	2.5	12	1.1/2	20.8	32.8	0.984	3/8NPT	23	10.4
WCS2520-150	2.5	20	1.1/2	28.8	48.8	0.984	3/8NPT	30	13.6
WCS2524-150	2.5	24	1.1/2	32.8	56.8	0.984	3/8NPT	34	15.4
WCS2530-150	2.5	30	1.1/2	38.8	68.8	0.984	3/8NPT	41	18.6
WCS2536-150	2.5	36	1.1/2	44.8	80.8	0.984	3/8NPT	58	26.3
WCS3008-150	3	8	1.1/2	16.8	24.8	0.984	1/2NPT	22	10.0
WCS3010-150	3	10	1.1/2	18.8	28.8	0.984	1/2NPT	24	10.9
WCS3012-150	3	12	1.1/2	20.8	32.8	0.984	1/2NPT	26	11.8
WCS3020-150	3	20	1.1/2	28.8	48.8	0.984	1/2NPT	36	16.3
WCS3024-150	3	24	1.1/2	32.8	56.8	0.984	1/2NPT	41	18.6
WCS3030-150	3	30	1.1/2	38.8	68.8	0.984	1/2NPT	52	23.5
WCS3036-150	3	36	1.1/2	44.8	80.8	0.984	1/2NPT	60	27.2

WCT WELDED CYLINDERS WITH CROSS TUBE MOUNTES

(4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

FEATURES:

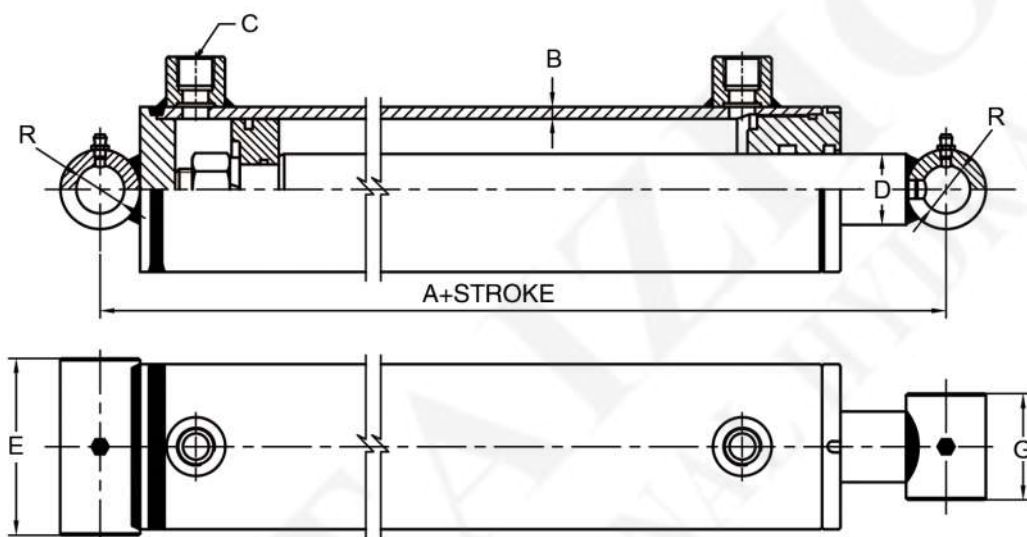
Intended Use: Double-acting applications

Tube: Steel tube honed or skived for extended seal life

Rod: Ground and polished hard chromed plated rod

Piston & Gland: Ductile iron

Seal Brand: Hallite



Dimensional Data in Inches (Millimeters)

BORE	DIMENSIONS						
	A	B	C	D	E	G	R
1.50 (38.10)	8 (203.2)	0.25 (6.35)	1/4NPT	1.00 (25.40)	2.25 (57.15)	2.00 (50.80)	0.77 (19.56)
2.00 (50.80)	8 (203.2)	0.25 (6.35)	3/8NPT	1.25 (31.75)	2.75 (69.85)	2.25 (57.15)	1.02 (25.90)
2.50 (63.50)	8 (203.2)	0.25 (6.35)	3/8NPT	1.50 (38.10)	3.25 (82.55)	2.25 (57.15)	1.02 (25.90)
3.00 (76.20)	8 (203.2)	0.25 (6.35)	1/2NPT	1.50 (38.10)	3.75 (95.25)	2.25 (57.15)	1.02 (25.90)
3.50 (88.90)	10 (254)	0.25 (6.35)	1/2NPT	1.75 (44.45)	4.25 (107.95)	2.25 (57.15)	1.27 (32.26)
4.00 (101.60)	10 (254)	0.25 (6.35)	1/2NPT	2.00 (50.80)	4.75 (120.65)	2.50 (63.50)	1.52 (38.61)
5.00 (127.00)	12 (304.8)	0.25 (6.35)	1/2NPT	2.50 (63.50)	5.75 (146.05)	3.25 (82.55)	1.77 (44.96)

WCT WELDED CYLINDERS

(4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

缸径行程-杆径

ARTICLE	BORE INCH	STROKE INCH	ROD DIA INCH	LENGTH MIN INCH	LENGTH MAX INCH	PORT	WEIGHT LBS	WEIGHT KG
WCT1504-100	1.5	4	1	12	16	1/4NPT	9.04	4.1
WCT1506-100	1.5	6	1	14	20	1/4NPT	10.14	4.6
WCT1508-100	1.5	8	1	16	24	1/4NPT	11.47	5.2
WCT1510-100	1.5	10	1	18	28	1/4NPT	12.79	5.8
WCT2008-125	2	8	1.1/4	16	24	3/8NPT	13.45	6.1
WCT2010-125	2	10	1.1/4	18	28	3/8NPT	15.21	6.9
WCT2012-125	2	12	1.1/4	20	32	3/8NPT	16.98	7.7
WCT2014-125	2	14	1.1/4	22	36	3/8NPT	18.74	8.5
WCT2016-125	2	16	1.1/4	24	40	3/8NPT	20.51	9.3
WCT2018-125	2	18	1.1/4	26	44	3/8NPT	22.27	10.1
WCT2020-125	2	20	1.1/4	28	48	3/8NPT	24.03	10.9
WCT2024-125	2	24	1.1/4	32	56	3/8NPT	27.56	12.5
WCT2028-125	2	28	1.1/4	36	64	3/8NPT	31.09	14.1
WCT2030-125	2	30	1.1/4	38	68	3/8NPT	32.85	14.9
WCT2032-125	2	32	1.1/4	40	72	3/8NPT	34.84	15.8
WCT2036-125	2	36	1.1/4	44	80	3/8NPT	38.37	17.4
WCT2040-125	2	40	1.1/4	48	88	3/8NPT	41.90	19.0
WCT2048-125	2	48	1.1/4	56	104	3/8NPT	48.95	22.2
WCT2508-150	2.5	8	1.1/2	16	24	3/8NPT	19.85	9.0
WCT2510-150	2.5	10	1.1/2	18	28	3/8NPT	21.83	9.9
WCT2512-150	2.5	12	1.1/2	20	32	3/8NPT	24.03	10.9
WCT2514-150	2.5	14	1.1/2	22	36	3/8NPT	26.24	11.9
WCT2516-150	2.5	16	1.1/2	24	40	3/8NPT	28.44	12.9
WCT2518-150	2.5	18	1.1/2	26	44	3/8NPT	30.65	13.9
WCT2520-150	2.5	20	1.1/2	28	48	3/8NPT	32.85	14.9
WCT2524-150	2.5	24	1.1/2	32	56	3/8NPT	37.26	16.9
WCT2528-150	2.5	28	1.1/2	36	64	3/8NPT	41.45	18.8
WCT2530-150	2.5	30	1.1/2	38	68	3/8NPT	43.66	19.8
WCT2532-150	2.5	32	1.1/2	40	72	3/8NPT	45.86	20.8
WCT2536-150	2.5	36	1.1/2	44	80	3/8NPT	50.27	22.8
WCT2540-150	2.5	40	1.1/2	48	88	3/8NPT	54.68	24.8
WCT2548-150	2.5	48	1.1/2	56	104	3/8NPT	63.28	28.7
WCT3008-150	3	8	1.1/2	16	24	1/2NPT	24.70	11.2
WCT3010-150	3	10	1.1/2	18	28	1/2NPT	27.12	12.3
WCT3012-150	3	12	1.1/2	20	32	1/2NPT	29.55	13.4
WCT3014-150	3	14	1.1/2	22	36	1/2NPT	31.97	14.5
WCT3016-150	3	16	1.1/2	24	40	1/2NPT	34.40	15.6
WCT3018-150	3	18	1.1/2	26	44	1/2NPT	36.82	16.7
WCT3020-150	3	20	1.1/2	28	48	1/2NPT	39.25	17.8
WCT3024-150	3	24	1.1/2	32	56	1/2NPT	44.10	20.0
WCT3028-150	3	28	1.1/2	36	64	1/2NPT	48.95	22.2
WCT3030-150	3	30	1.1/2	38	68	1/2NPT	51.38	23.3
WCT3032-150	3	32	1.1/2	40	72	1/2NPT	53.58	24.3

WCT WELDED CYLINDERS (4" Bore = 3000 PSI, 5" Bore = 2500 PSI)

ARTICLE	BORE INCH	STROKE INCH	ROD DIA INCH	LENGTH MIN INCH	LENGTH MAX INCH	PORT	WEIGHT LBS	WEIGHT KG
WCT3036-150	3	36	1.1/2	44	80	1/2NPT	58.43	26.5
WCT3040-150	3	40	1.1/2	48	88	1/2NPT	63.28	28.7
WCT3048-150	3	48	1.1/2	56	104	1/2NPT	72.99	33.1
WCT3508-175	3.5	8	1.3/4	18	26	1/2NPT	32.63	14.8
WCT3510-175	3.5	10	1.3/4	20	30	1/2NPT	35.72	16.2
WCT3512-175	3.5	12	1.3/4	22	34	1/2NPT	38.81	17.6
WCT3514-175	3.5	14	1.3/4	24	38	1/2NPT	41.67	18.9
WCT3516-175	3.5	16	1.3/4	26	42	1/2NPT	44.76	20.3
WCT3518-175	3.5	18	1.3/4	28	46	1/2NPT	47.63	21.6
WCT3520-175	3.5	20	1.3/4	30	50	1/2NPT	50.72	23.0
WCT3524-175	3.5	24	1.3/4	34	58	1/2NPT	56.67	25.7
WCT3528-175	3.5	28	1.3/4	38	66	1/2NPT	62.62	28.4
WCT3530-175	3.5	30	1.3/4	40	70	1/2NPT	65.71	29.8
WCT3532-175	3.5	32	1.3/4	42	74	1/2NPT	68.80	31.2
WCT3536-175	3.5	36	1.3/4	46	82	1/2NPT	74.75	33.9
WCT3540-175	3.5	40	1.3/4	50	90	1/2NPT	80.70	36.6
WCT3548-175	3.5	48	1.3/4	58	106	1/2NPT	92.61	42.0
WCT4008-200	4	8	2	18	26	1/2NPT	40.79	18.5
WCT4010-200	4	10	2	20	30	1/2NPT	44.54	20.2
WCT4012-200	4	12	2	22	34	1/2NPT	48.29	21.9
WCT4014-200	4	14	2	24	38	1/2NPT	51.82	23.5
WCT4016-200	4	16	2	26	42	1/2NPT	55.57	25.2
WCT4018-200	4	18	2	28	46	1/2NPT	59.09	26.8
WCT4020-200	4	20	2	30	50	1/2NPT	62.84	28.5
WCT4024-200	4	24	2	34	58	1/2NPT	70.12	31.8
WCT4028-200	4	28	2	38	66	1/2NPT	77.40	35.1
WCT4030-200	4	30	2	40	70	1/2NPT	81.14	36.8
WCT4032-200	4	32	2	42	74	1/2NPT	84.67	38.4
WCT4036-200	4	36	2	46	82	1/2NPT	91.95	41.7
WCT4040-200	4	40	2	50	90	1/2NPT	99.23	45.0
WCT4048-200	4	48	2	58	106	1/2NPT	114.00	51.7
WCT5008-250	5	8	2.1/2	20	28	1/2NPT	71.88	32.6
WCT5010-250	5	10	2.1/2	22	32	1/2NPT	76.07	34.5
WCT5012-250	5	12	2.1/2	24	36	1/2NPT	80.48	36.47
WCT5014-250	5	14	2.1/2	26	40	1/2NPT	84.67	38.37
WCT5016-250	5	16	2.1/2	28	44	1/2NPT	89.08	40.37
WCT5018-250	5	18	2.1/2	30	48	1/2NPT	93.49	43.37
WCT5020-250	5	20	2.1/2	32	52	1/2NPT	97.68	44.27
WCT5024-250	5	24	2.1/2	36	60	1/2NPT	106.28	48.17
WCT5028-250	5	28	2.1/2	40	68	1/2NPT	115.10	52.16
WCT5030-250	5	30	2.1/2	42	72	1/2NPT	119.29	54.06
WCT5032-250	5	32	2.1/2	44	76	1/2NPT	123.70	56.06
WCT5036-250	5	36	2.1/2	48	84	1/2NPT	132.30	59.96
WCT5040-250	5	40	2.1/2	52	92	1/2NPT	140.90	63.86
WCT5048-250	5	48	2.1/2	60	108	1/2NPT	158.10	71.65

MOBILE PIVOT PIN AND HAIR PIN CLIPS

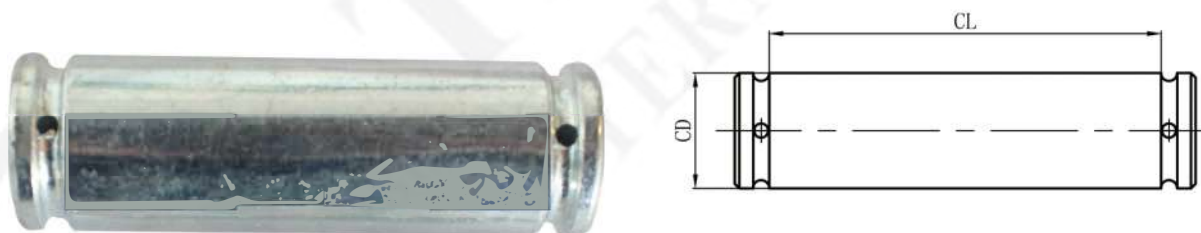
MATERIAL:STEEL,PLATED SURFACE
INCLUDES 2 EXTERNAL HAIR PIN CLIPS



RAPT NUMBER	DESCRIPTION	CD	CL
WCC-1.0X2.83PIN ASSY	WCC PIN-CLIP ASSEMBLY	1	2.33
WCC-1.0X3.23PIN ASSY	WCC PIN-CLIP ASSEMBLY	1	2.33
TR-1.0X3.50PIN ASSY	TR PIN-CLIP ASSEMBLY	1	2.86
TR-1.0X4.41PIN ASSY	TR PIN-CLIP ASSEMBLY	1	3.77

MOBILE PIVOT PIN AND P-CLIPS

MATERIAL:PINS:STEEL,PLATED SURFACE
INCLUDES 2 R-CLIPS



RAPT NUMBER	DESCRIPTION	CD	CL
TR-1.0X2.83PIN ASSY	TR PIN-CLIP ASSEMBLY	1	2.83
TR-1.0X3.25PIN ASSY	TR PIN-CLIP ASSEMBLY	1	3.25
TR-1.25X3.31PIN ASSY	TR PIN-CLIP ASSEMBLY	1.25	3.31

ZS SNOW PLOW CYLINDERS (2500PSI)

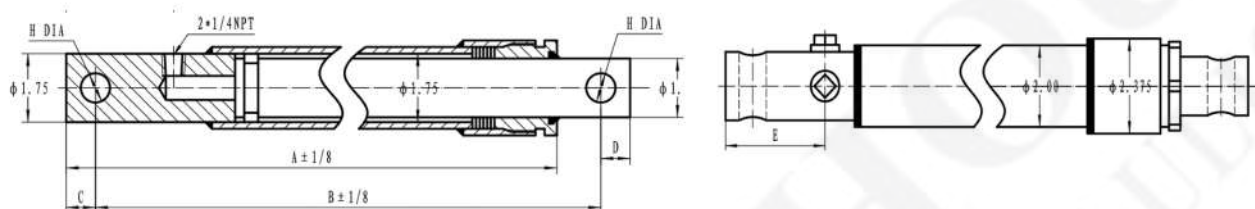
FEATURES

Intended Use: Single-acting applications

Tube: Honed steel, precision finished for extended seal life

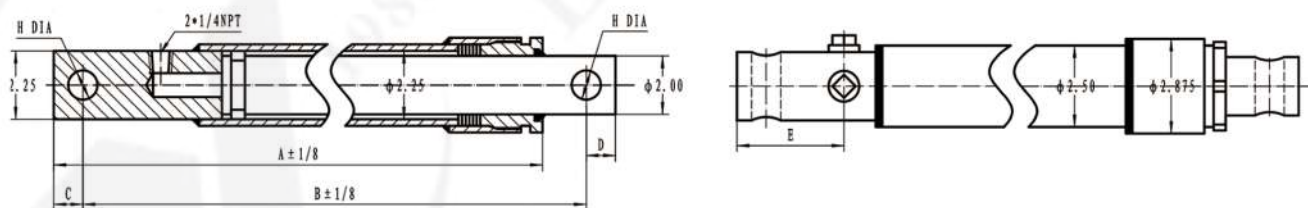
Piston&Gland: Ductile iron gland,

Rod: High tensile, hard chrome plated rod



缸径行程-销子直径-安装孔距

ARTICLE	BORE INCH	STROKE INCH	A	B	C&D	E	H	WEIGHT LBS	WEIGHT KG
ZS-1506-0625-1200	1.5	6	11-7/8	12.00	11/16	2.00	5/8	12	5.4
ZS-1510-0625-1625	1.5	10	15-7/8	16-1/4	11/16	2.00	5/8	14	6.3
ZS-1512-0625-1800	1.5	12	17-7/8	18.00	11/16	2.00	5/8	15	6.8
ZS-1506-0750-1300	1.5	6	12-5/8	13.00	11/16	2-3/4	3/4	12	5.4
ZS-1508-0750-1525	1.5	8	14-5/8	15-1/4	11/16	2-3/4	3/4	13	5.9
ZS-1510-0750-1725	1.5	10	16-5/8	17-1/4	11/16	2-3/4	3/4	14	6.3
ZS-1510-1000-1750	1.5	10	16-5/8	17-1/2	11/16	2-3/4	1.00	14	6.3
ZS-1510-0750-1700	1.5	10	16-5/8	17.00	3/4	2-3/4	3/4	14	6.3
ZS-1512-0750-1900	1.5	12	18-5/8	19.00	3/4	2-3/4	3/4	15	6.8
ZS-1512-1000-1937	1.5	12	18-7/16	19-3/8	3/4	2-5/8	1.00	15	6.8
ZS-1510-1000-1725	1.5	10	16-3/8	17-1/4	3/4	2-11/16	1.00	14	6.3

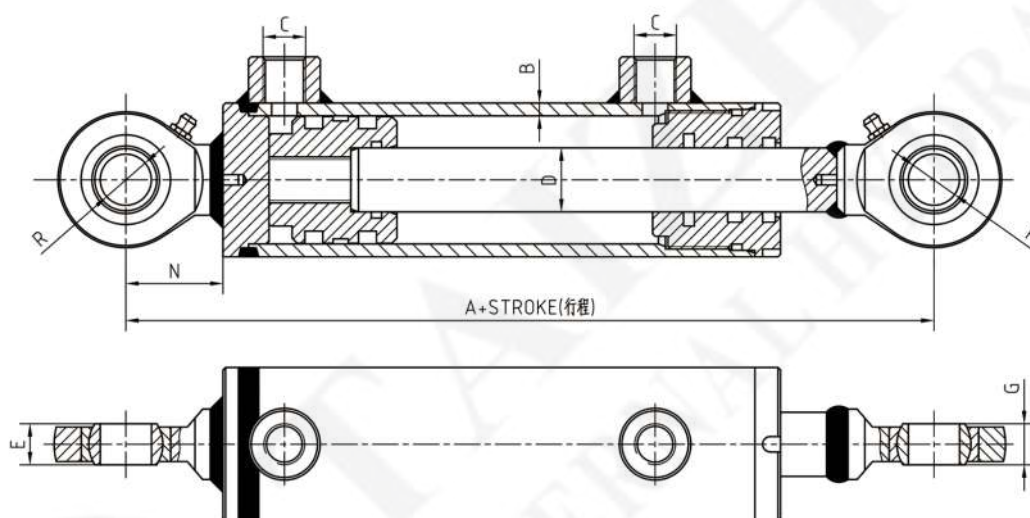


ARTICLE	MODEL	A	B	C&D	E	H	WEIGHT LBS	WEIGHT KG
ZS-2012-0625-1800	ZS2.0"X12"	17-1/4	18.00	3/4	2-3/16	5/8	18	8.2
ZS-2016-1000-2360	ZS2.0"X16"	22-5/8	23-3/5	11/16	2-3/4	1.00	21	9.5
ZS-2006-0750-1318	ZS2.0"X6"	12-5/8	13-3/16	3/4	2-3/4	3/4	13	5.9
ZS-2010-1000-1725	ZS2.0"X10"	16-5/8	17-1/4	11/15	2-3/4	1.00	16	7.3
ZS-2016-125-2325	ZS2.0"X16"	22-1/2	23-1/4	7/8	2-3/4	1-1/4	20	9.1

WCS WELDED CYLINDERS WITH SWIVEL BALL MOUNTES 前后耳环带关节轴承焊接油缸



3000 PSI



Dimensional Data in Millimeters

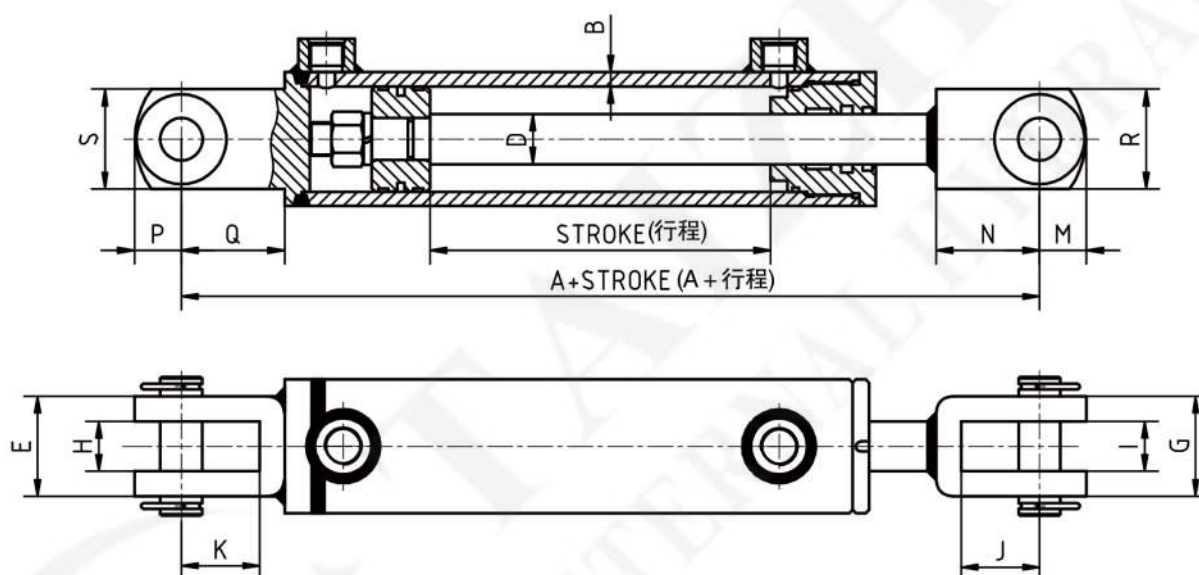
缸径 BORE	尺寸 DIMENSIONS (mm)							
	A	B	C	D	E	G	N	R
Φ25	160	5	PT1/8	16	10	10	27	12
Φ40	190	7.5	PT1/4	25	16	16	38	20
Φ50	223	7.5	PT3/8	30	20	20	45	25
Φ63	230	6.5	PT3/8	35	22	22	51	30
Φ80	300	7.5	PT1/2	40	28	28	69	40

WCC WELDED CYLINDERS WITH CLEVIS MOUNTES

前后双耳环带销轴焊接油缸



3000 PSI



Dimensional Data in Millimeters

缸径 BORE	尺寸DIMENSIONS (mm)														
	A	B	D	E	G	H	I	J	K	N	P	Q	S	R	C
Φ63	310	8.5	30	60	60	30	30	47	47	62	28	62	60	60	PT1/2
Φ80	310	7.5	40	77	77	28	28	56	45	71	30	68	60	52	PT1/2

CUSTOMIZED SERVICES

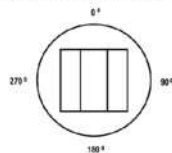
If the cylinders you need can not be found in our catalogue, please write your requirement at below. We will according to your information to design the cylinders for you as soon as possible.

Company Information

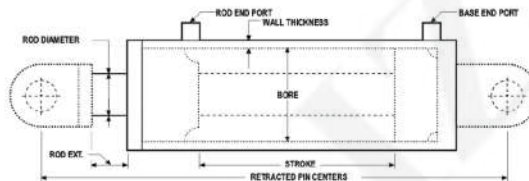
E-mail: _____
Company Name: _____
Contact Name: _____
State/Province: _____ Zip/Postal Code: _____ Country: _____
Telephone: (____) _____ Fax: (____) _____

Product Information

Port Location Guide



Bore: _____
Wall Thickness: _____
Stroke: _____
Retracted _____
Pin Centers: _____
Rod: _____
Diameter: _____
Extension: _____
Type: ☐ Induction hardened
☐ Standard
☐ Nitro



Rod End Port: Size: _____
Type: ☐ NPT ☐ SAE ☐ Other _____
Location: _____ 0
Cap End Port: Size: _____
Type: ☐ NPT ☐ SAE ☐ Other _____
Location: _____ 0

**Custom
Cylinders
1-year
Limited
Warranty**
Returnable only if
manufacture defective.

Application information

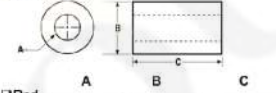
Cylinder will be used: Yes No
Push? ☐ ☐
Pull? ☐ ☐
Double Acting? ☐ ☐
Single Acting? ☐ ☐
Will cylinder be used
to lift personnel? ☐ ☐
Pressure Rating:
Operating: _____ PSI
Type of machine: _____
Installed Position:
Horizontal ☐ Vertical ☐ Angled or Arc ☐

Other Requirements

Please Print

Mounting Options

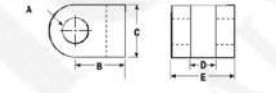
Cross Tube



☐ Rod _____

☐ Cape _____

Double Clevis



☐ Rod _____

☐ Cape _____

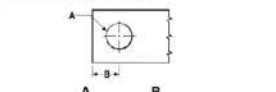
Single Clevis



☐ Rod _____

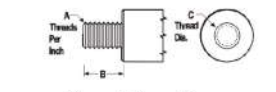
☐ Cape _____

Hole Through Rod



☐ Rod _____

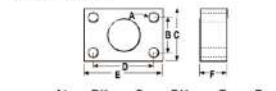
Threaded Rod



☐ Rod _____

* Threads per inch ** Length

Flange Mount



☐ Gland _____

☐ Cape _____

* Print must be furnished on size, location and number of holes
** Bolt Hole Centers

Force Developed by a Hydraulic Cylinder

$$F=A \times \text{PSI}$$

Definitions

F=Force or thrust,lbs A=Piston area,square inches PSI=Gauge pressure,lbs/sq.inch