



Vertical Swing Cylinder

Flange mounting, double acting, threaded port / manifold port

Description :

Vertical swing cylinders are used in applications similar to that of swing cylinders and can replace swing cylinders in many places. In the unclamped position, the work piece area is free from the strap, to facilitate easy loading / unloading. It is a double acting cylinder. The job gets clamped in the piston push direction. The clamping strap is connected to the piston by a linkage mechanism.

Installation

Installation of the cylinder is very simple with 4 cap screws on the top flange. For threaded port cylinders clamp and de-clamp ports are provided on face of the mounting flange as shown in figure. For manifold port cylinders clamp and de-clamp ports are provided on bottom face of the mounting flange as shown in respective figure.

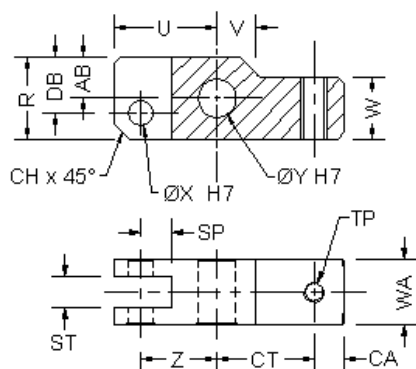
Specifications :

- 1 Maximum operating pressure - 150 bar.

Notes :

- 1 Standard strap has to be ordered separately. In case, a longer strap is required, it should be designed for increased bending moment.
- 1 The adjusting screw on the strap should be adjusted for a 3 mm reserve stroke.
- 1 For all cylinders, two ports are at rear side only.
- 1 For ordering the seal kit, add the prefix "S" to the part number.

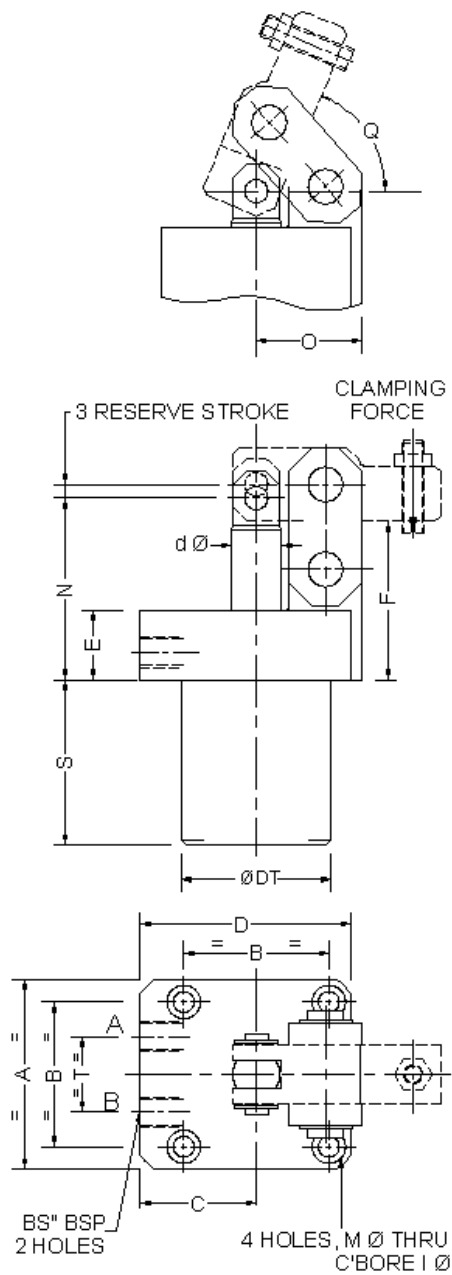
Dimensional details for straps :



BORE	PART NO.	U	V	AB	DB	R	W	SP	ST	Z	CT	CA	WA	TP	X	Y	CH	WEIGHT
25	3204400	24.3	16.5	6.5	10	16	8	12	6	18.5	23.5	6	11.8	M6	6	6	4	0.15 kg
32	3201700	32	13	13	18	26	18	11	10.1	24	28	14	22	M6	8	12	5	0.2 kg
40	3200500	40	15	16	22	32	24	12.5	12.1	30	38	12	26	M10	10	15	6	0.4 kg
50	3206300	45.5	-	13	13	26	26	17.5	16	32	42	12	32	M12	12	12	5	0.5 kg
63	3203400	64	20	24	32	48	38	20.5	20.1	48	65	13	38	M16	16	22	10	1.0 kg
80	3211100	69	-	21	21	42	42	25	20	48	66	14	42	M16	16	22	10	1.2 kg

All dimensions are in mm, Overall dimension tolerance ± 0.5 mm.

Dimensional details for threaded port cylinders :



PART NO. WITH THREADED PORT	3110801	3111801	3111601	3111201	3111901	3112201
Clamping Force @ 150 bar	5.7 kN	10.3 kN	14.8 kN	22.4 kN	34.5 kN	54.8 kN
Ø BORE	25	32	40	50	63	80
PORTS	2	2	2	2	2	2
A	51	70	82	90	112	134
D	66	82	93	105	125	155
B	40	55	63	70	85	100
C	40.5	47	52	60	69	88
F	51	62	69	78	97	118
T	22	30	35	35	42	48
d	14	18	22	30	36	45
E	26	28	30	30	36	48
H	17	17	17	17	19	19
N	57	70	79	91	113	139
S	47	60	72	80	102	115
DT	48	55	65	80	95	116
O	25.5	37	46	45	72	69
Q	71°	72°	67.4°	72°	67°	82°
BS	1/8"	1/8"	1/4"	1/4"	3/8"	3/8"
M	5.5	6.6	9	9	13.5	14
I	9.5	11	14.5	14.5	20	20
STROKE ±1	23.5	30	36	40	55	65
OIL VOL push	12 cc	24 cc	45 cc	78 cc	171 cc	326 cc
OIL VOL pull	8 cc	16 cc	31 cc	50 cc	115 cc	223 cc
WEIGHT	1.5 kg	2.5 kg	4 kg	-	11 kg	-
STD. STRAP	3204400	3201700	3200500	3206300	3203400	3211100

* Force is specified at 150 bar.

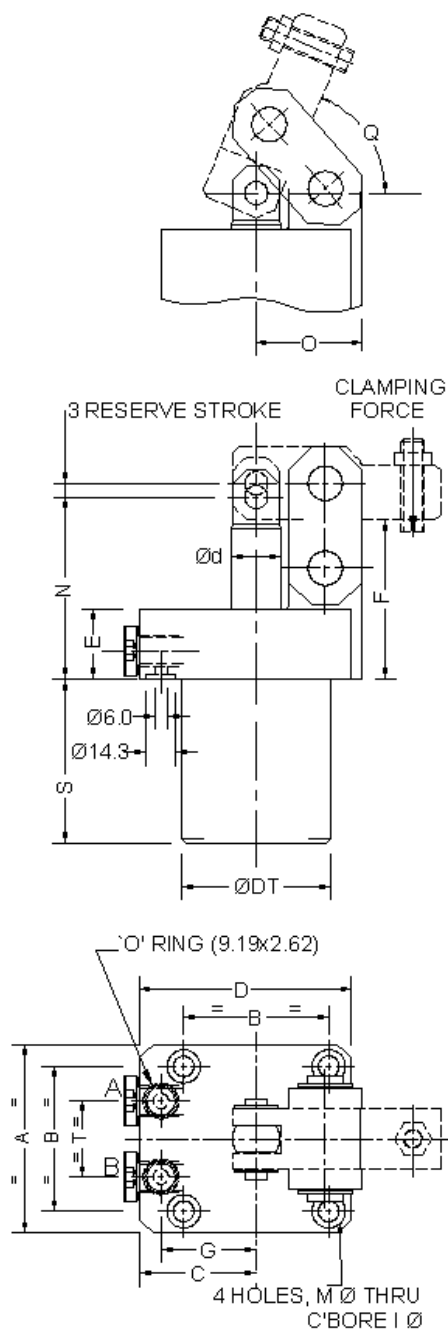
Cylinder part no is without strap, strap to be ordered separately.

Manifold mounting cylinder drawing details are given below.

All dimensions are in mm, Overall dimension tolerance ± 0.5 mm.

Subject to change for improvement. (Revision - August 13)

Dimensional details for manifold port cylinders :



PART NO. WITH MANIFOLD MOUNTG.	3111701	3111000	3110900	3111200	3112100	3112200
Clamping Force @ 150 bar	5.7 kN	10.3 kN	14.8 kN	22.4 kN	34.5 kN	54.8 kN
ϕ BORE	25	32	40	50	63	80
PORTS	2	2	2	2	2	2
A	51	70	82	90	112	134
D	66	82	93	105	125	155
B	40	55	63	70	85	100
C	40.5	47	52	60	69	88
F	51	62	69	78	97	118
T	22	30	35	35	42	48
d	14	18	22	30	36	45
E	26	28	30	30	36	48
H	17	17	17	17	19	19
N	57	70	79	91	113	139
S	47	60	72	80	102	115
DT	48	55	65	80	95	116
O	25.5	37	46	45	72	69
Q	71°	72°	67.4°	72°	67°	82°
BS	1/8"	1/8"	1/4"	1/4"	3/8"	3/8"
M	5.5	6.6	9	9	13.5	14
I	9.5	11	14.5	14.5	20	20
G	25	35	40	48	55	70
STROKE ± 1	23.5	30	36	40	55	65
OIL VOL push	12 cc	24 cc	45 cc	78 cc	171 cc	326 cc
OIL VOL pull	8 cc	16 cc	31 cc	50 cc	115 cc	223 cc
WEIGHT	1.5 kg	2.5 kg	4 kg	-	11 kg	-
STD. STRAP	3204400	3201700	3200500	3206300	3203400	3211100

* Force is specified at 150 bar.

Cylinder part no is without strap, strap to be ordered separately.

Manifold mounting cylinder drawing details are given below.

All dimensions are in mm, Overall dimension tolerance ± 0.5 mm.

Subject to change for improvement. (Revision - August 13)