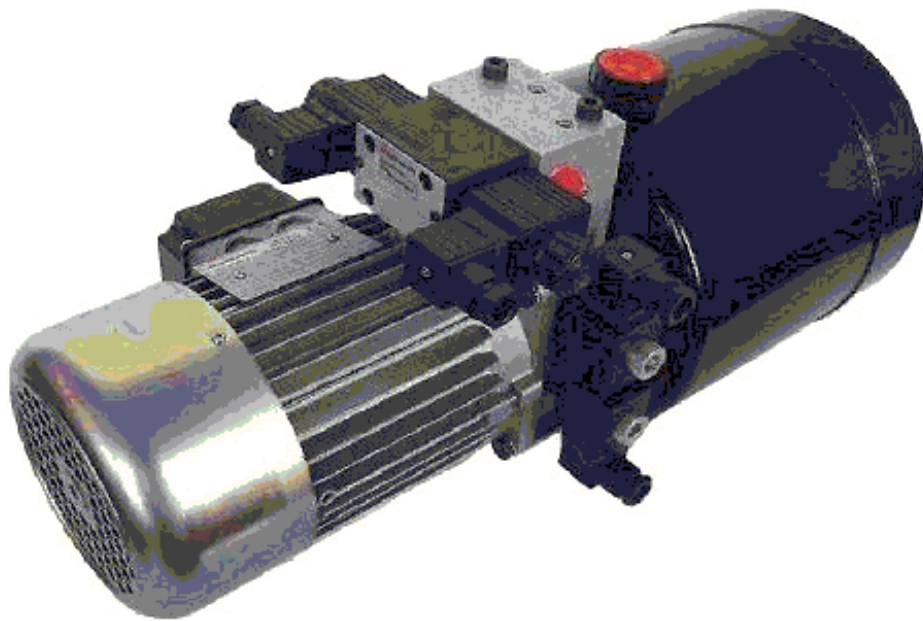




# MINI HYDRAULIC POWER UNIT



COMPACT CONSTRUCTION  
CUSTOM BUILT DESIGN  
WORKING PRESSURE UPTO : 240 BAR  
FLOW UPTO :20 LPM  
POWER RANGE : 0.37 KW To 3.7 KW  
SUPPLY : A.C. OR D.C.



Total Fluidpower Performance



## INTRODUCTION

K type AC/DC operated mini hydraulic power unit offer virtually limitless choices in assembling the unit to the exact specification by customer. Cartridge type or subplate mounted valves are mounted directly on the power unit, providing compact,integral, multy-function control.

This design also facillitates convenient field service and component replacement. Beside use of cartridges and manifolding system, the compactness in mini hydraulic power unit is achieved by using innovative design, streamlined tank and high level of standardization. the standard mini power unit can be offered in power range 0.37 kw to 3.7 kw, upto 20LPM pump capacity, upto 60lts.tank capacity and operating pressure upto 240 bars. Units are best suited for hospital equipment, lifting platforms, mobile cranes, industrial and aircraft maintenance equipments etc.

## SELECTION & USE

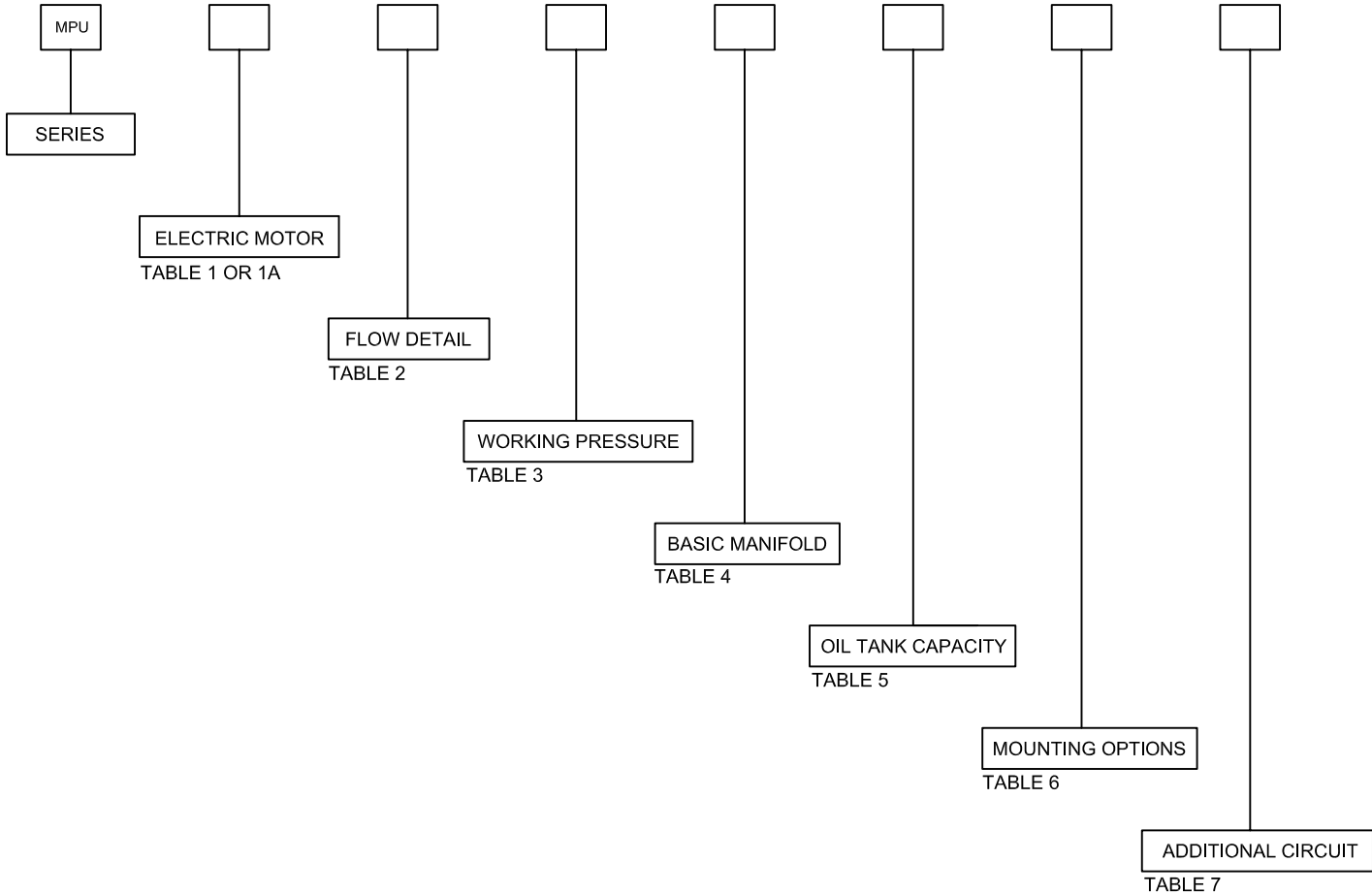
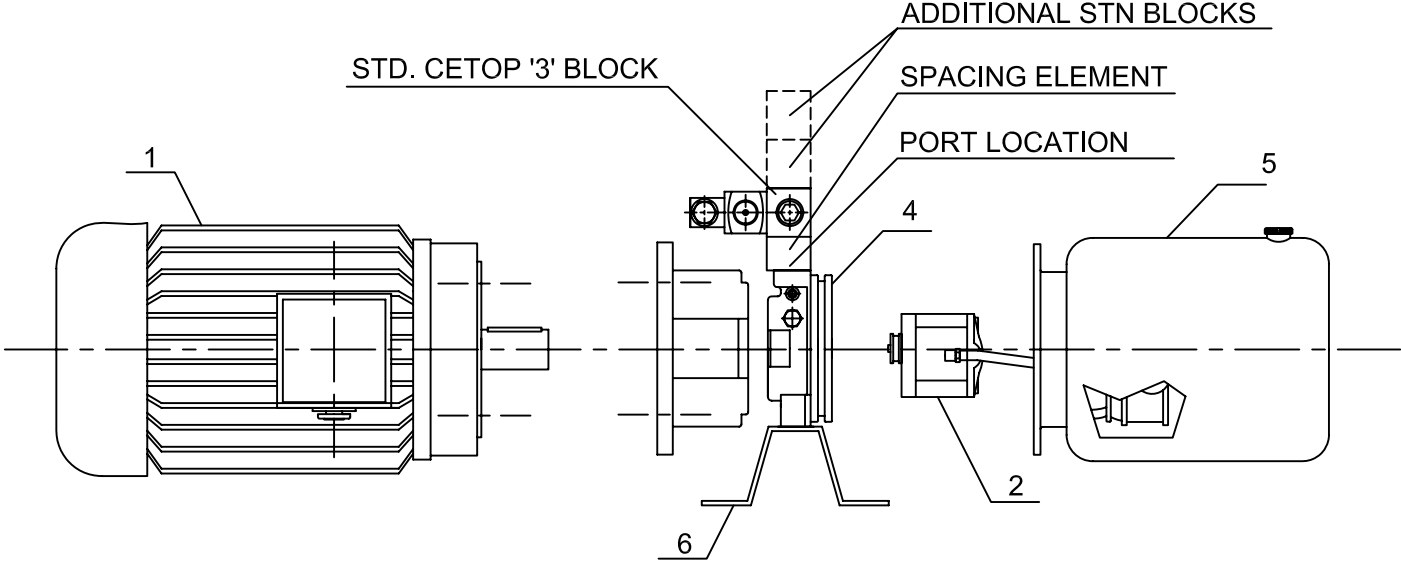
In order to obtain best result and longest life , it is necessary to properly select motor pump and oil tank size. The working pressure sould not exceed the limit in table 3.

The tank capacity can be as small as that equal to the pump flow per minute for mobile aplication and equal to three times the pump flow per minute for industrial applications. Higher tank capacities are preferred for longer operating times & vice-versa.

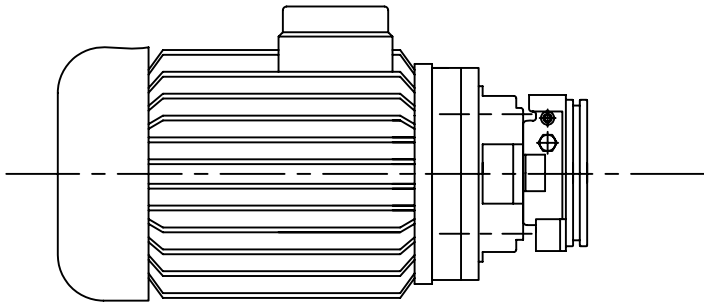
Always fill the tank with pre-filtered oil and the suction filter should be cleaned atleast once in 2 to 3 months. in case of defective work, check oil condition, level, pump performance, valve functioning and electric equipment seperately.

Custom designed power pack can be manufactured with modification in the standard item or use of modular valves.

# Mini Hydraulic Power Unit



**TABLE 1 : A.C. MOTORS**



ORDER CODE	MOTOR TYPE
0.	WITHOUT MOTOR
1.	A.C. SINGLE PHASE MOTOR
2.	A.C. THREE PHASE MOTOR
3.	D.C. MOTOR

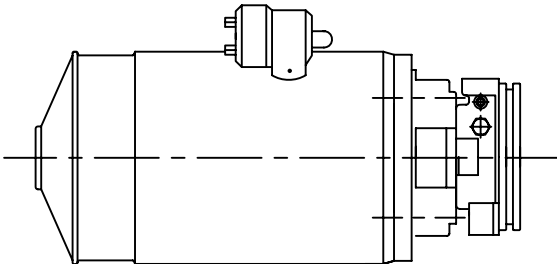
ORDER CODE 2P	ORDER CODE 4P	3000RPM 2P KW	1500RPM 4P KW
202	402	0.37	0.25
202	403	0.55	0.37
204	404	0.75	0.55
205	405	1.1	0.75
206	406	1.5	1.1
207	407	2.2	1.5
208	408	3.7	2.2
209	409		3.7

FOR D.C. MOTOR ONLY, SEE TABLE 1A

**NOTE : REFER TABLE 3 FOR SELECTION OF MOTOR KW POWER.**



**TABLE 1A : D.C. MOTORS**



D.C. MOTOR

ORDER CODE	V volt.	N watt.
C05	12	2000
C07	24	2500
C11	12	1500
C12	24	2000
C25	12	800
C34	24	1200
C42	24	3000

RELAY FOR D.C. MOTOR

ORDER CODE	V volt.	I amp.
A		
B	12	90
C	12	150
D	24	90
E	24	150
F	48	150

PROTECTION FOR D.C. MOTOR

ORDER CODE	PROTECTION
0	WITHOUT PROTECTION
1	WITH TEMP. PROTECTION



**TABLE 2 : FLOW DETAILS.**

ORDER CODE	C.C. PER REVOLUTION	MAX. WORKING PRESSURE.
11	1	225
12	1.5	225
13	2	225
14	2.6	225
15	3.1	225
16	3.6	225
17	4.2	225
18	4.7	200
19	5.7	200
20	7.8	175

**TABLE 3 : WORKING PRESSURE.**

INDICATE WORKING PRESSURE IN BARS

USE FORMULA BELOW FOR RELATION BETWEEN FLOW, PRESSURE & MOTOR POWER.

$$KW = LPM \times BAR \times 2 \times 10^{-3}$$

KW = POWER IN KILOWATT

LPM = FLOW IN LITRE PER MINUTE

BAR = WORKING PRESSURE IN KG./CM<sup>2</sup>

THE ABOVE FORMULA DOES NOT HOLD FOR D.C. MOTORS

**TABLE 4 : BASIC MANIFOLD**

--	--

ORDER CODE	CIRCUIT
1.	
2.	
3.	
4.	

D.C. VALVE FOR MANI FOLD	
ORDER CODE	ONLY FOR MANIFOLD 07 & 08
SA	
SB	
HA	
HB	

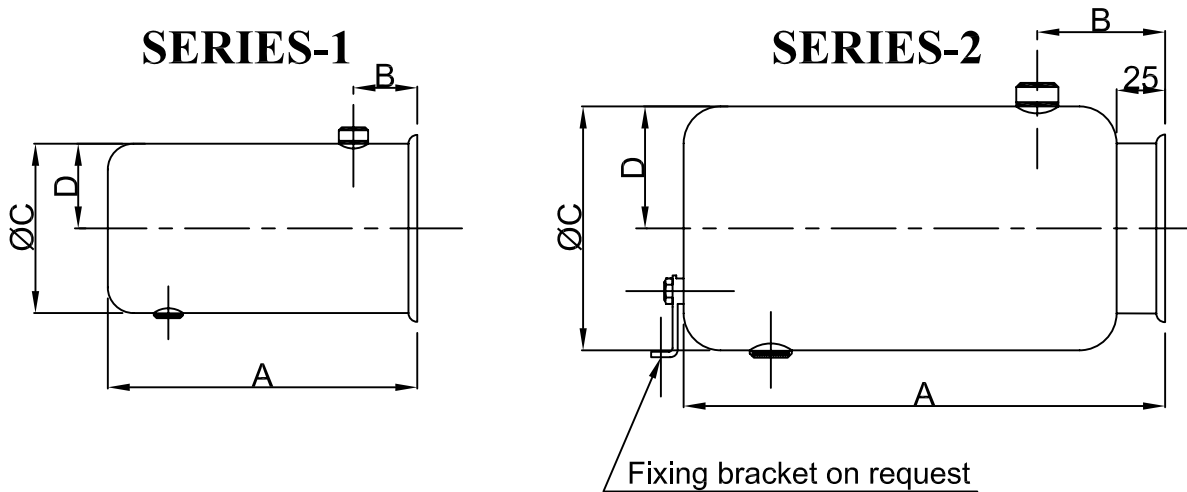
**NOTE :**

- 1. FOR CIRCUIT 08 MENTION SEPARATELY REQUIRED FLOW RATE FOR LOWERING VALVE.
- 2. SA & SB ARE SOLENOID OPRATED D.C. VALVE & HA & HB ARE HAND OPERATED.
- 3. MENTION SOLENOID VOLTAGE SEPARATELY.



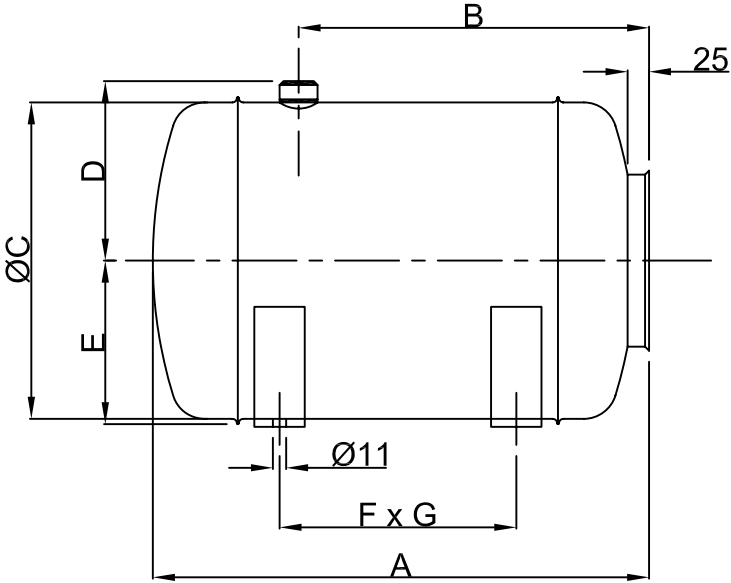
**TABLE 5 : OIL TANK CAPACITY.**

ORDER CODE	VOLUME IN LTS.	TANK DIMENSIONS							SERIES
		A	B	C	D	E	F	G	
S01	1	133	35	126	90	—	—	—	1
S02	2.5	239	35	126	90	—	—	—	1
S03	5	218	35	190	125	—	—	—	2
S04	8	323	35	190	125	—	—	—	2
S05	12	335	235	250	150	130	175	150	3
S06	18	520	420	250	150	130	290	150	3
S07	20	340	215	290	270	120	—	—	4
S08	30	340	330	410	270	120	—	—	4
S09	45	540	265	345	320	120	—	—	4
S10	60	540	360	440	320	120	—	—	4
S11	45	540	265	320	120	—	—	—	5
S12	60	540	360	320	120	—	—	—	5

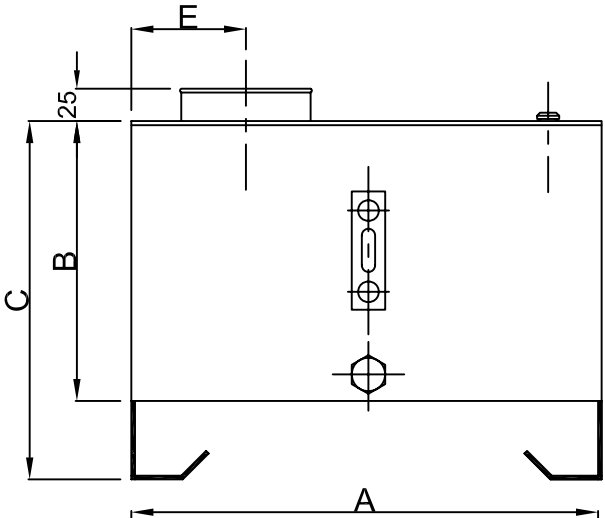


P.T.O  
FOR OTHER SERIES  
TANK SKETCHES

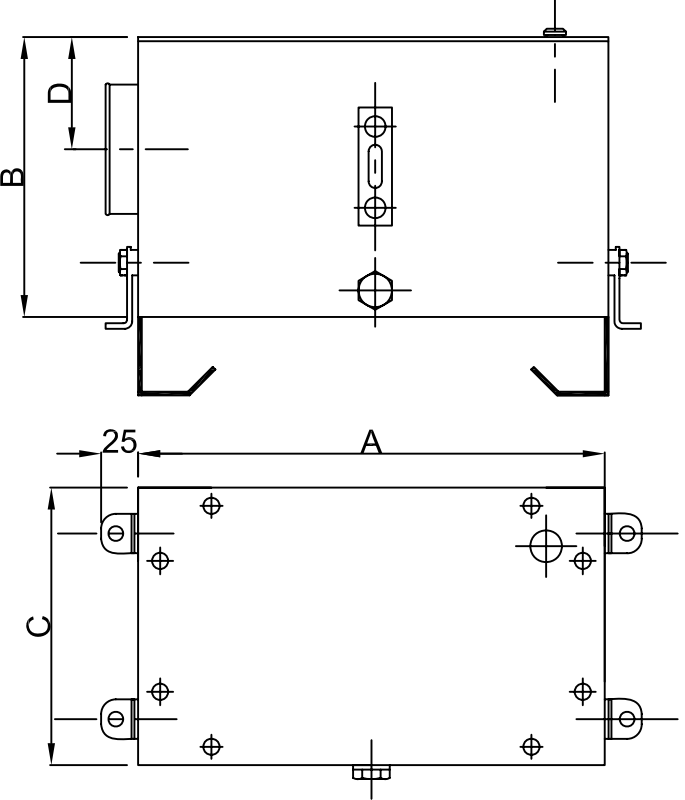
**SERIES-3**



**SERIES-4**



**SERIES-5**



# TABLE 6 : MOUNTING OPTION-SUPPORTS.

**A**

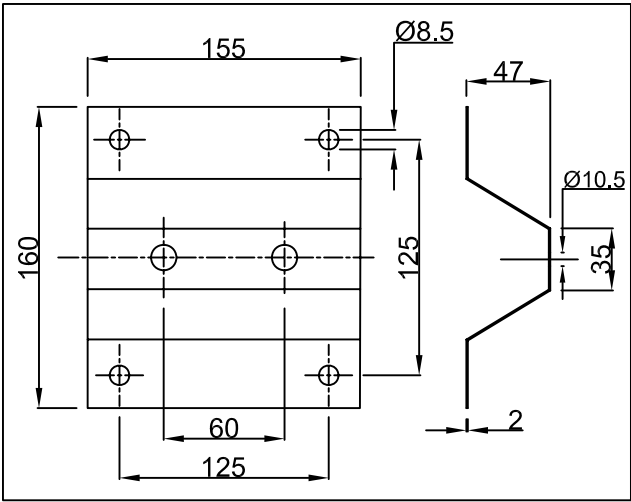
FOR TANK OF SERIES 1 & 2 ONLY

ORDER CODE	DESCRIPTION
G00	WITHOUT SUPPORT
G07	SUPPORT AS ON DRAWING

**A** | **B**

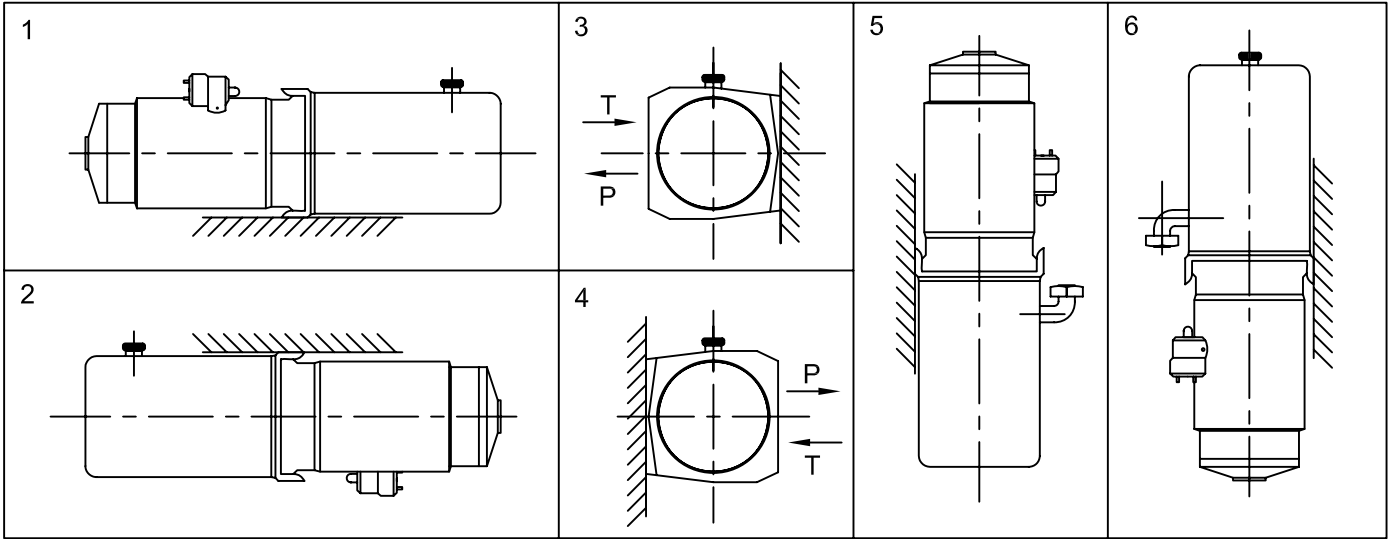
**B**

ORDER CODE	MOUNTING POSITION
01	1
02	2
03	3
04	4
V1	5
V2	6



A-SUPPORT FOR POWER PACK

**B - MOUNTING POSITIONS**



**TABLE 7 : ADDITIONAL CIRCUITS**



**A**

ORDER CODE	DESCRIPTION	DIAGRAM	DRAWING
N	STANDARD 3/8" BSP FEMALE ON BASIC MANIFOLD		
N01	SPACING ELEMENT H = 40		
N02	SPACING ELEMENT H = 70		
N03	STANDARD SINGLE STATION CETOP 3 MANIFOLD PARALLEL CONNECTION		
N04	STANDARD SINGLE STATION CETOP 3 MANIFOLD SERIES CONNECTION		
N05	SPECIAL MANIFOLDS (MANIFOLD MODIFIED TO SUIT CUSTOMER'S REQUIREMENT)		

FOR STANDARD MANIFOLD BLOCKS 3/8" BSP FEMALE PORTS ARE PROVIDED.

NO3NO3 : STANDARD DOUBLE STATION CETOP 3 MANIFOLD

NO3NO3NO3 : STANDARD THREE STATION CETOP 3 MANIFOLD



# CETOP 3 SOLENOID D.C. VALVES

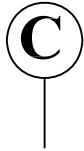
**B**

ORDER CODE	SYMBOL
E01	
E02	
E03	
E04	
E05	
E06	
E07	
E08	
E09	
E10	

MENTION SOLENOID VOLTAGE SEPARATELY



## CONTROL VALVE



SELECT REQUIRED COMBINATION OF VALVES FROM ATTACHED ANNEXURE FOR VARIETY OF CETOP - 3 STANDARD VAVES.

(UPON USE OF MULTI-STATION BLOCKS, VALVES REQUIRED ON EACH STATION MUST BE MENTIONED SEPARATELY.)

### ORDERING EXAMPLE FOR TABLE 7

#### 1. EXAMPLE FOR SINGLE STATION.

NO1 / NO3 / PRR-M01-P / DPC-M01-AB / E06

NO1 : SPACING ELEMENT

NO3 : STANDARD CETTOP 3 SINGLE STATION BLOCK

E06 : DOUBLE SOL. OP. A,B,P,T CLOSED D.C. VALVE

PRR-MO1-P : CETOP 3 PRESSURE REDUCING VALVE

DPC-MOL-AB : DOUBLE PILOT OPERATED CHECK VALVE

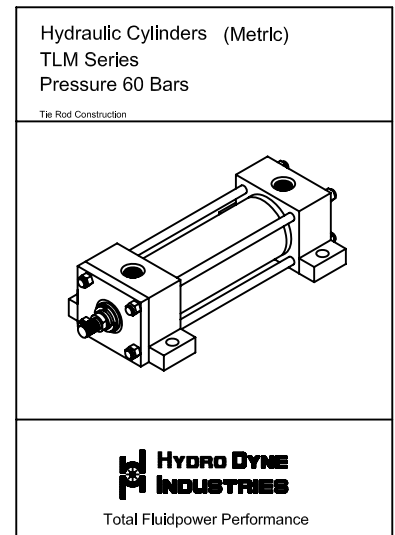
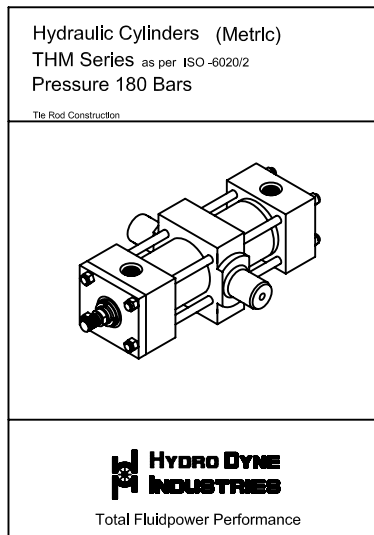
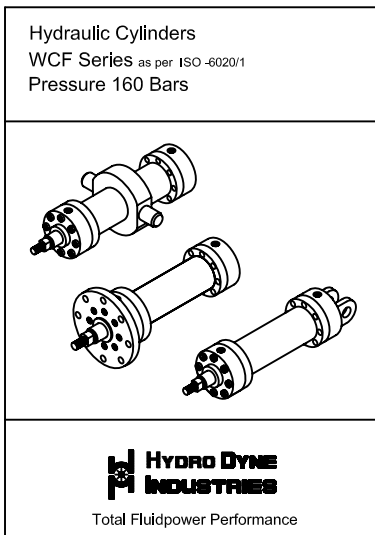
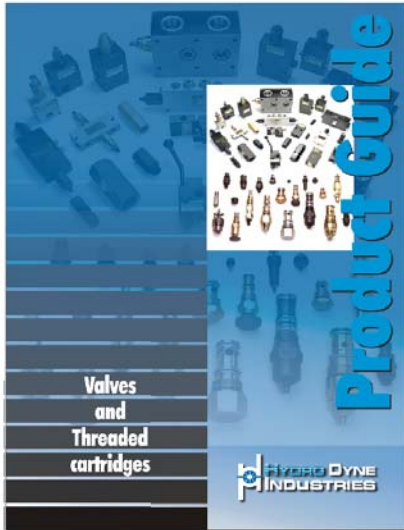
#### 2. EXAMPLE FOR DOUBLE STATION.

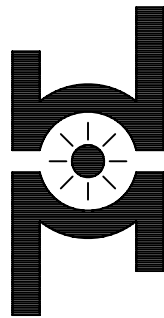
NO1 / NO3 ( \_\_\_\_\_ ) NO3 ( \_\_\_\_\_ ).

NO1 = SPACING ELEMENT

NO3 = ( PRR-MO1-P, DPC-MO1-AB); NO3 (SPC-MO1-A, XRDD-MO1-AB)

# OTHER PRODUCT PROFILE





## **HYDRO DYNE INDUSTRIES**

Plot No.11, Sector No.2, Vasai Taluka Indl. Co-op. Estate Ltd.,  
Gourai Pada, Vasai Road (E), Maharashtra - 401 208

Tel. :0250-2456136/137 , Fax. :0250-2456134

E-MAIL : [hydin@vsnl.com](mailto:hydin@vsnl.com)

[www.hydrodyneindustries.com](http://www.hydrodyneindustries.com)