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HYDRAULIC TANK
FOR
HOME LIFTS

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UT	**ASSEMBLY and USE MANUAL**	DATE 11/18
		DWG N. **9001/MIU-IN**

INDEX

WARNING

- IN ORDER TO AVOID MOTOR DAMAGES, WIRE UP AS INDICATED ON THE TERMINAL BOARD COVER.
- WHEN THE MOTOR/PUMP IS FIRST STARTED UP, CHECK THE NOISE LEVEL, IF IT SEEMS TOO HIGH THEN THE PHASES MUST BE INVERTED AT THE CONTROL PANEL.

0552/IN

WARNING

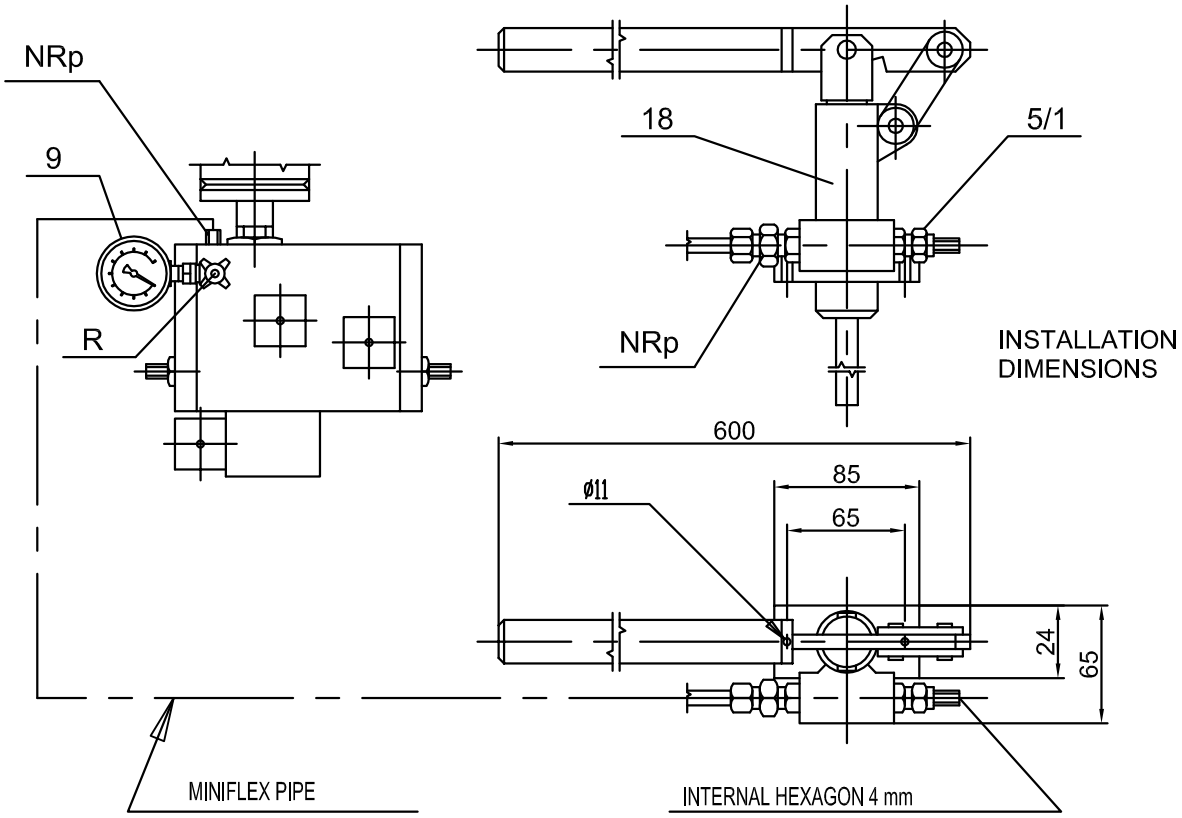
- THIS POWER UNIT HAS BEEN FACTORY SET.
- READ THE ENCLOSED INSTRUCTIONS CAREFULLY BEFORE TO ADJUSTING ANY OF THE SCREW.

0553/IN

UT	General instructions for connection motor and solenoid valves power unit	DATE 10/08
		DWG Nr 0985/IN

0985-ING

TECHNICAL DATA: FLOW RATE FOR EVERY CYCLE 12 cm^3
MAX. ADMISSIBLE PRESSURE 110 bar



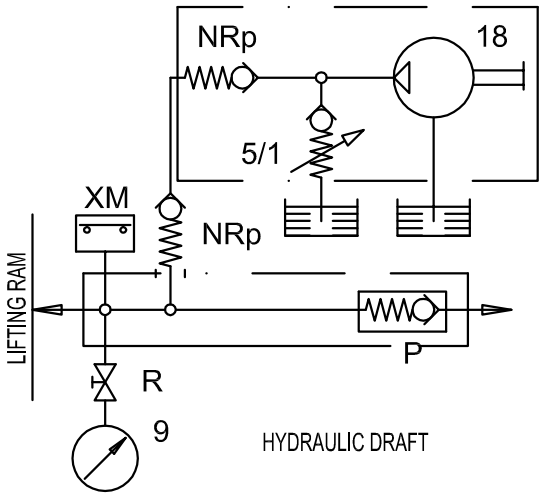
INSTALLATION DIMENSIONS

18- HAND PUMP

NRp- NONRETURN VALVE OF THE HAND PUMP

5/1- OVERPRESSURE VALVE OF THE HAND PUMP 2, 3 TIMES THE MAX STATIC PRESSURE

- THE HAND PUMP CONNECTION IS REALIZED BETWEEN THE VALVE " " AND THE PRESSURE GAUGE " " 9



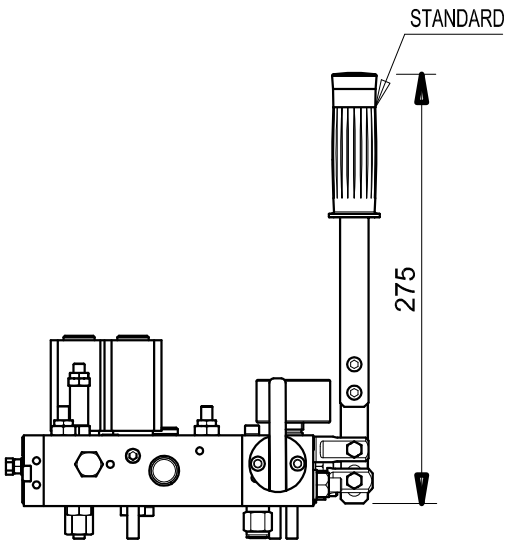
HYDRAULIC DRAFT

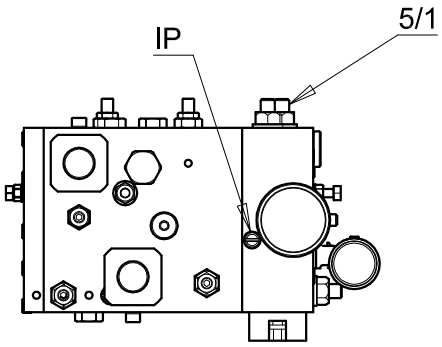
NOTES FOR THE HAND PUMP REGULATION SET

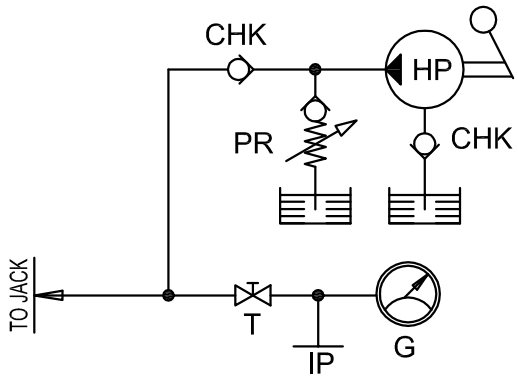
- BEFORE GIVING TENSION TO THE MOTOR, IT IS NECESSARY TO ACTUATE THE HAND PUMP, IN THE FOLLOWING WAY:

  - LOOSEN THE SCREW N°5/1 (ACTING ON THE HEXAGONAL NUT IN ORDER TO KEEP CONSTANT THE PROTRUDING LENGTH OF THE NUT SCREW) FOR ABOUT 2 - 5 TURNS.
  - OPERATE THE HAND PUMP IN ORDER TO OBTAIN THE OIL FLOW IN A REGULAR WAY (NO AIR), FROM THE N°5/1 SCREW OUTLET.
  - BRING BACK THE N°5/1 SCREW IN THE ORIGINAL POSITION, VERIFYING THE PRESSURE VALUE SET BEFORE (2, 3 TIMES THE MAX. STATIC PRESSURE).
  - FOR DIFFERENT PRESSURE VALUES, SET THE N°5/1 SCREW (ROTATING CLOCKWISE THE PRESSURE INCREASES)

UT			HAND PUMP	DATE 12/07
				DWG N. 9405







HYDRAULIC SCHEME

CHK- NON -RETURN VALVE
G- MANOMETER
HP- HAND PUMP
IP- INSPECTION
PR- OVERPRESSURE VALVE
T- TAP EXCLUDER

NOTES FOR HAND PUMP SETTING (ADJUSTMENT)

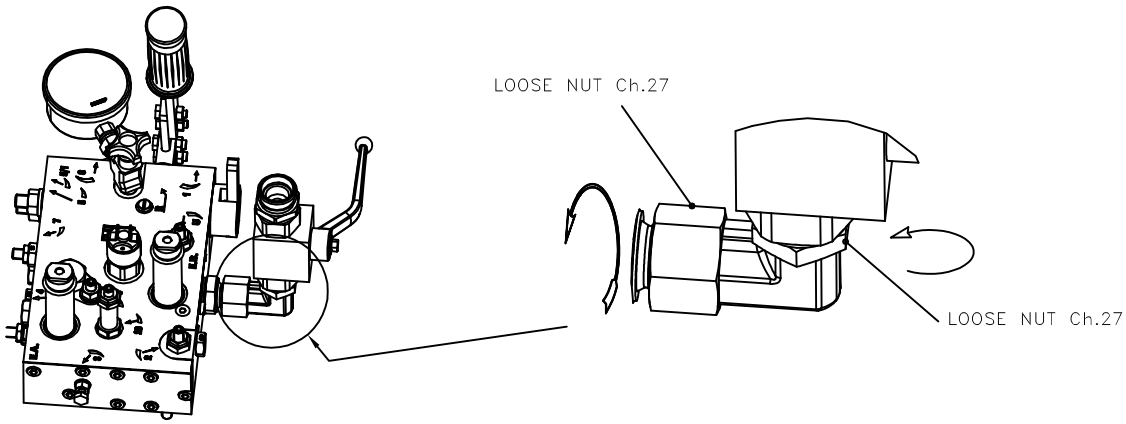
- BEFORE APPLYING VOLTAGE TO THE MOTOR, ACTIVATE THE HAND PUMP AS FOLLOWS:

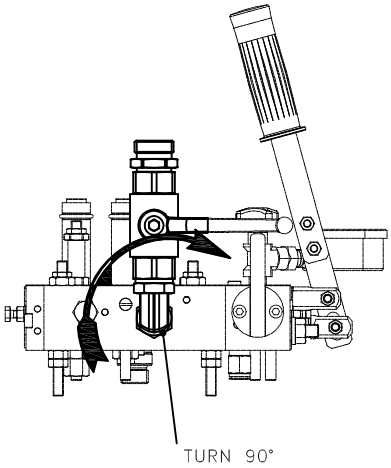
① - UNSCREW THE SCREW IP FOR ABOUT 3 TURNS.
② - OPERATE THE HAND PUMP UNTIL OIL COMES FROM THE SCREW IP.
③ - IF NO OIL COMES OUT, UNSCREW THE SCREW IP AND FILL THE HOLE WITH OIL TO THE EDGE AND THEN REPEAT STEP ②
④ - TIGHTEN THE SCREW IP UNTIL IT STOPS.

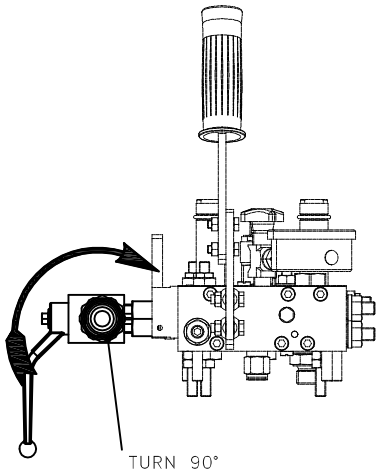
- FOR DIFFERENT PRESSURES ADJUST SCREW N° 5/1.
(TURNING CLOCKWISE THE PRESSURE INCREASES)

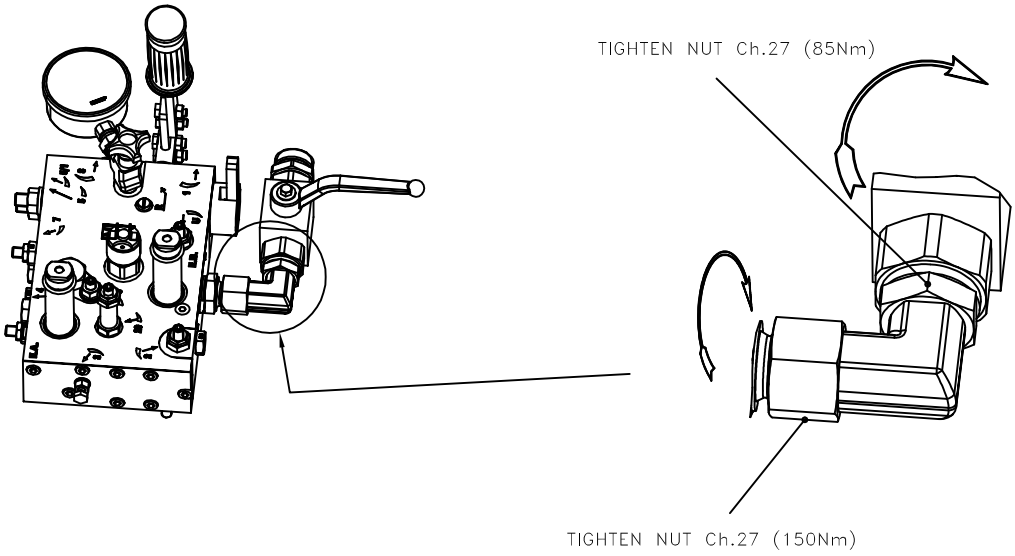
UT			HAND PUMP FOR VALVE MH2V	DATE 11/18
				DWG N. 9405/2V-35

CHANGE OUTPUT PORT FROM VERTICAL TO HORIZONTAL



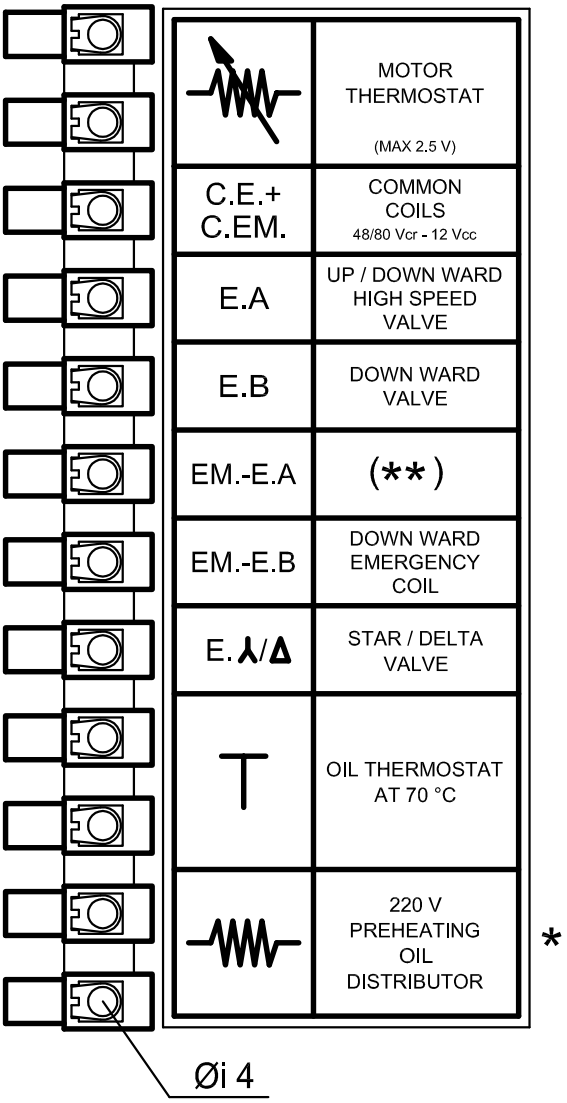




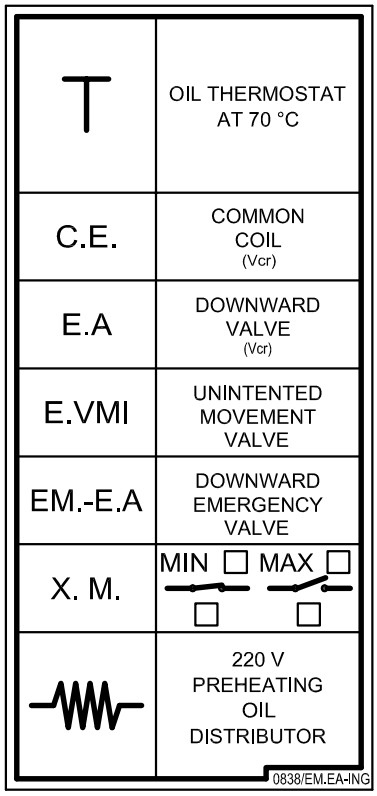


UT			MH–2V VALVE OUTPUT DIRECTION CHANGE PROCEDURE ADJUSTABLE PORT	DATA 11/18 DIS. N° 9344 MH–2V

ELECTRICAL WIRING
for 15-30 l/min 2 speed distributor



ELECTRICAL WIRING
for 8-23 l/min 1 speed distributor



E.A
E.B
E. ⅄/Δ — VALVES (STAR / DELTA ON REQUEST)

C.E. - COMMON VALVE
C.EM. - COMMON EMERGENCY VALVE
EM. - EMERGENCY

E.A-E.B-E. ⅄/Δ - NORMAL USE 48 V. RECTIFIED CURRENT-BLACK WIRE
E.A-E.B - AUTOMATIC USE IN EMERGENCY 12 V. DIRECT CURRENT-WHITE WIRE

NOTE:

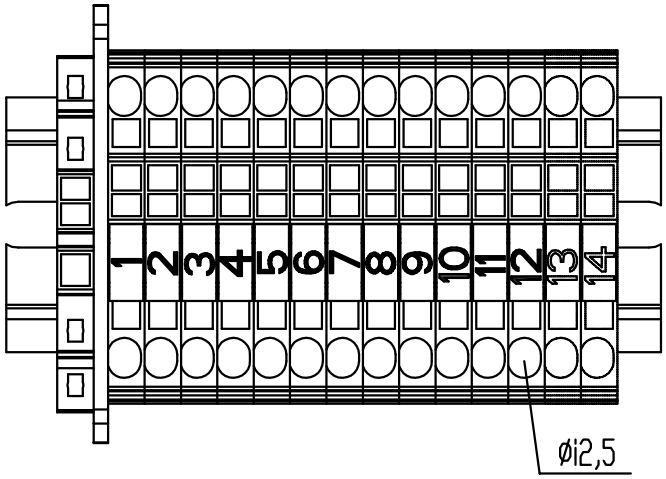
* - CONNECT COLD MONTHS (220 V. - 50 W.)

(**) - FOR DOWNWARD HIGH SPEED JUMP WITH: EM.-E.B

UT			ELECTRICAL WIRING IN THE POWER UNIT	DATE 11/18
				DWG Nr 9310/1-ML

ELECTRICAL WIRING
for 8-30 l/min 2 speed

1		MOTOR THERMOSTAT (MAX - 2.5 V)	
2			
3	C.E.+ C.EM.	COMMON COILS 48/80 Vcr - 12 Vcc	
4	E.A	UP/DOWN WARD HIGH SPEED VALVE	
5	E.B	DOWN WARD VALVE	
6	EM.-E.B	DOWN WARD EMERGENCY COIL	
7	X.M. max.		**
8			
9		OIL THERMOSTAT AT 70°C	
10			
11		220 V PREHEATING OIL DISTRIBUTOR	*
12			
13	X.M. min.		**
14			



E.A
E.B - SOLENOID VALVES

C.E. - COMMON VALVE
C.EM. - COMMON EMERGENCY VALVE
EM. - EMERGENCY

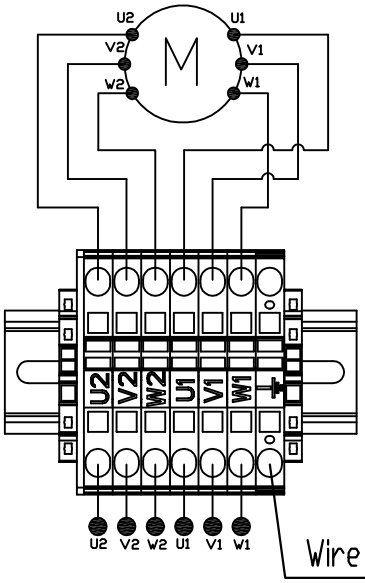
E.A-E.B-E. - NORMAL USE 48V.c.r. BLACK WIRE
E.A.-E.B - AUTOMATIC USE IN EMERGENCY 12 V.cc WHITE WIRE

* N.B.: CONNECT COLD MONTHS (220V. - 50W.)

** OPZIONAL

UT	ELECTRICAL WIRING IN THE POWER UNIT (ONLY VALVE MH2V)	DATE 08/16
		DWG N. 9312/1

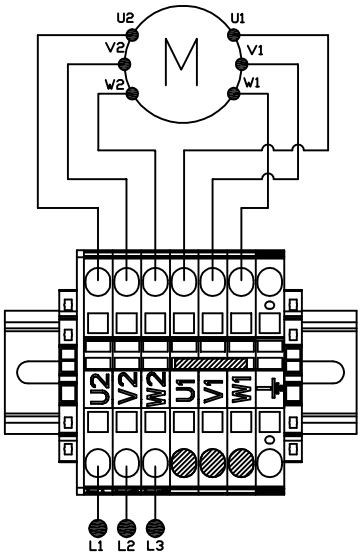
9312/1-ING



STARTING

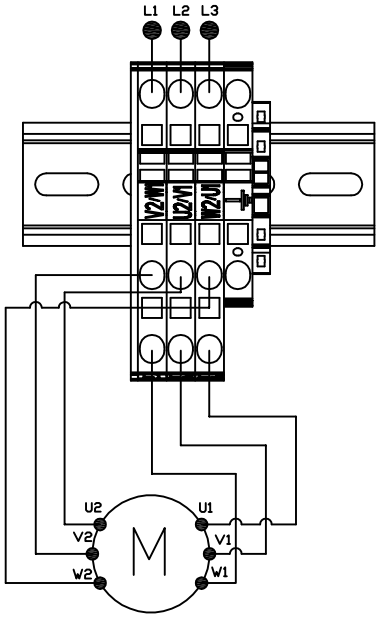
Y/Δ

Wire cross-section Max = 6mm²



DIRECT STARTING
or with SOFT-STARTER

Y 230-400 VAC
240-415 VAC

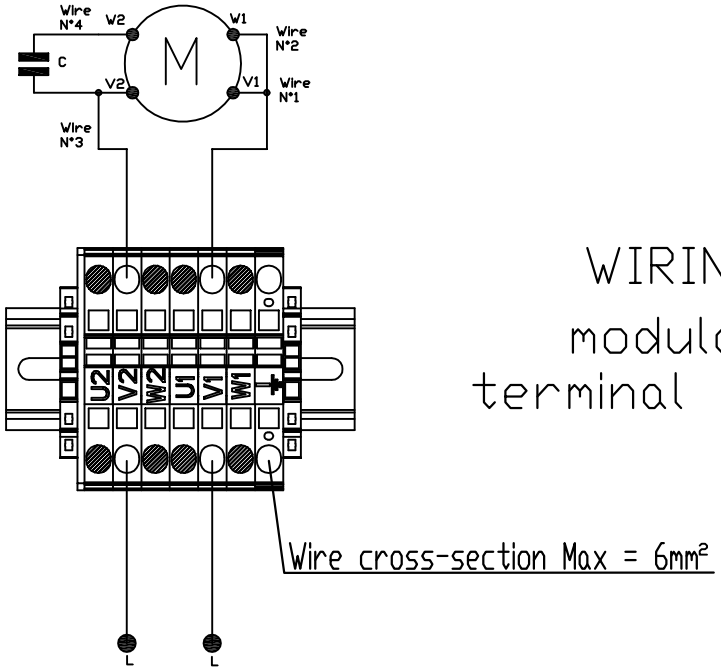


DIRECT STARTING
or with SOFT-STARTER

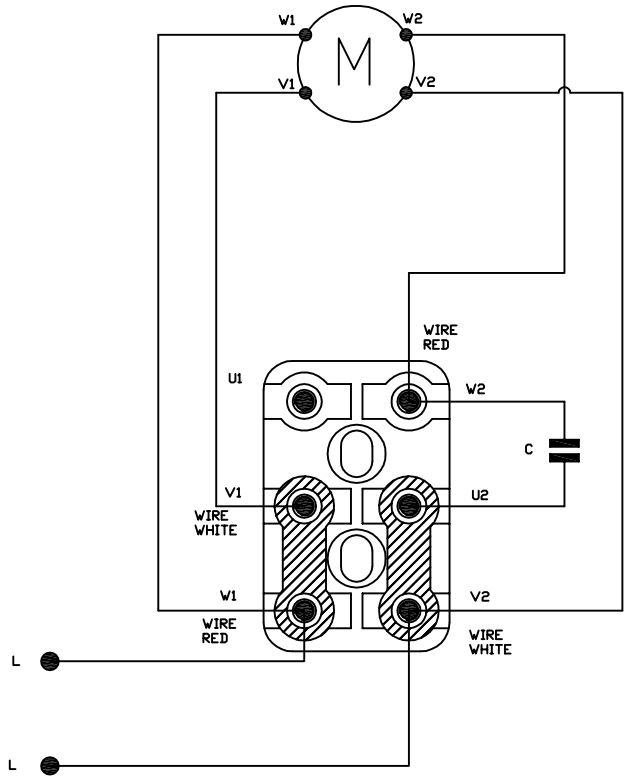
Δ 400-690 VAC
415-720 VAC

UT			ELECTRICAL WIRING FOR POWER UNIT MARK2 (main power 3-phase motor 8-16 CV)	DATE 07/18 DWG N. 9312/4

9312/4-EN



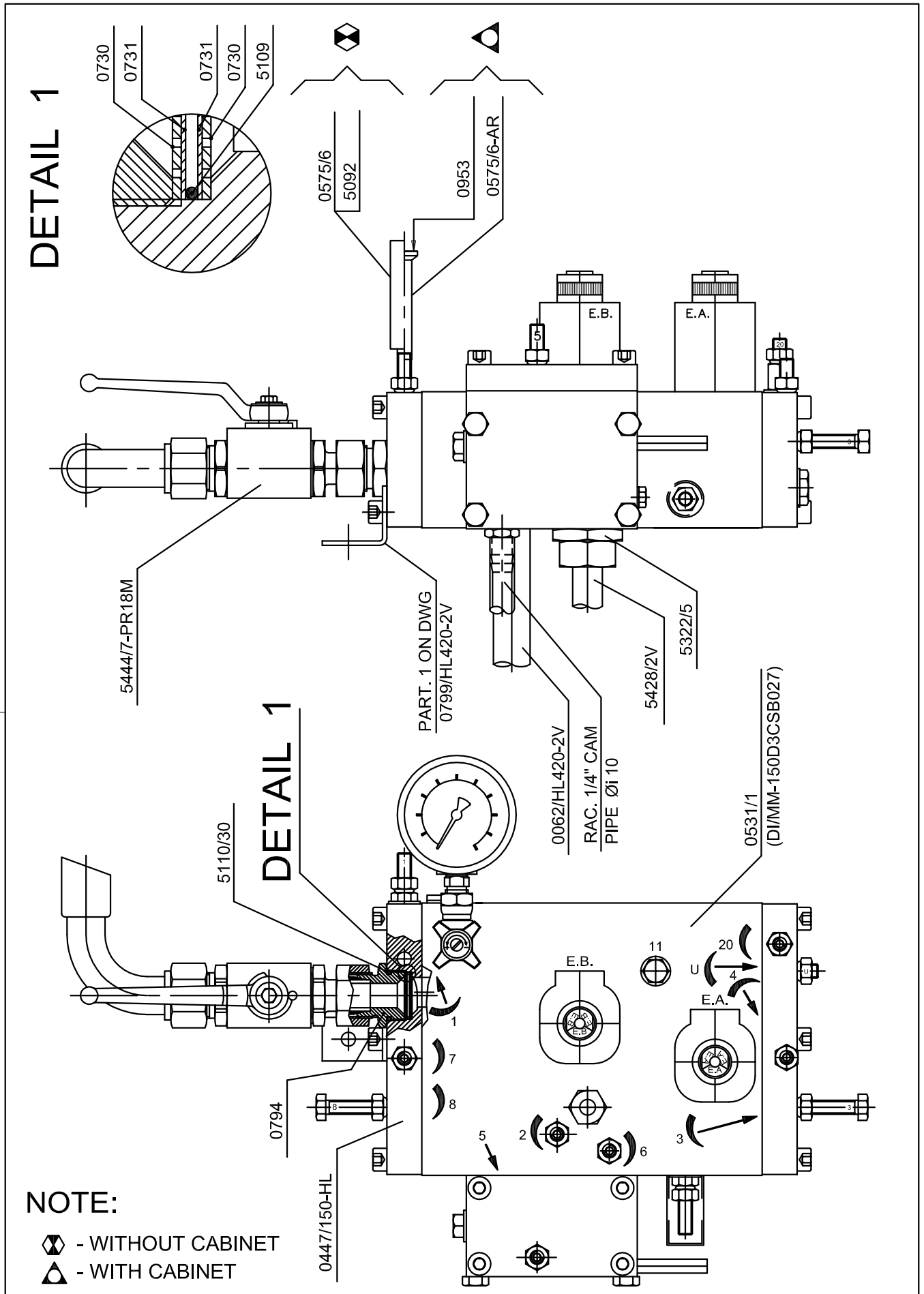
WIRING
modular terminal board



WIRING
box-terminal board

UT	ELECTRICAL WIRING FOR POWER UNIT MARK2 (main power single phase motor)	DATE 07/18
		DWG N. 9312/5

9312/5-EN



UT	OLEODYNAMIC DISTRIBUTOR "HL-2V" (15 / 30 L/MIN.)	DATE 08/11 DWG Nr. 9505/2V

9505/2V-IN

9232-IN

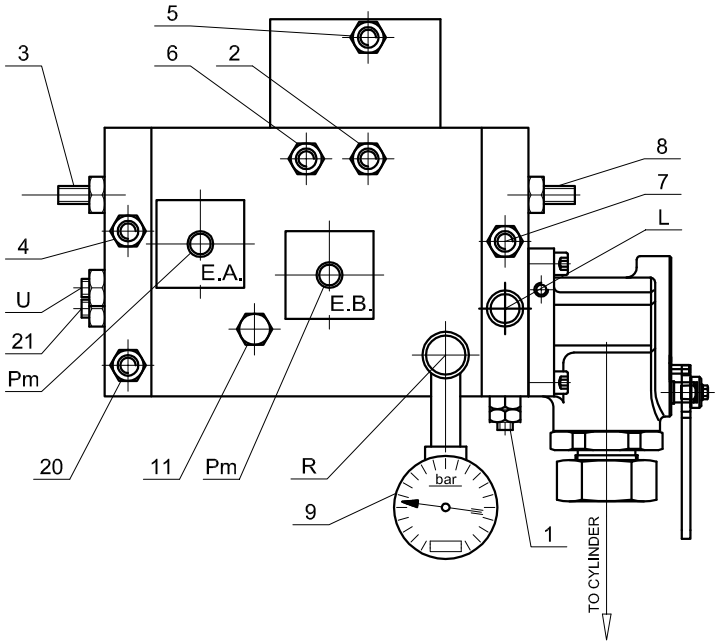
UT

ADJUSTMENT AND OPERATION SCHEME OF DISTRIBUTOR FOR INDIRECT ACTING AND DIRECT ON-LINE STARTING INSTALLATION

(DISTRIBUTOR 15/250 L/MIN)

DATE 10/15

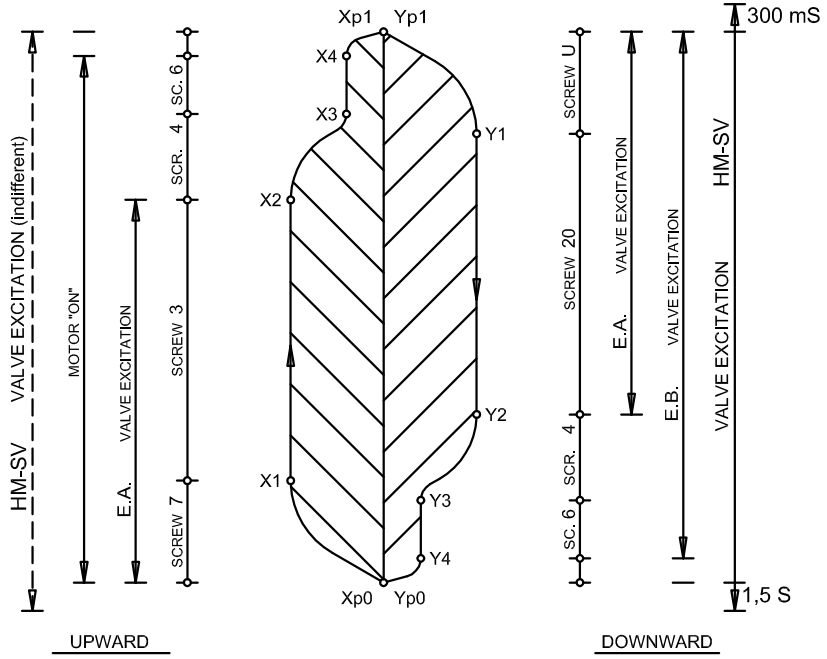
DWG No 9232



ADJUSTMENT

SCREW-	1	ADJUSTMENT FOR ROD COUNTERPRESSURE - TIGHTEN SCREW TO INCREASE COUNTERPRESSURE
SCREW-	2	ADJUSTMENT AND TEST OF SAFETY VALVE FOR ROD FAILURE (SEE DWG N°9345)
SCREW-	3	ADJUSTMENT FOR HIGH SPEED BALANCING IN UP/DOWN DIRECTION - TIGHTEN SCREW TO REDUCE SPEED
SCREW-	4	ADJUSTMENT FOR 1ST DECELERATION PHASE - SCREW DOWN FOR A SOFT DECELERATION
SCREW-	5	ADJUSTMENT FOR MAX. PRESSURE - TIGHTEN SCREW TO INCREASE PRESSURE
SCREW-	6	ADJUSTMENT FOR LOW SPEED IN UPWARD AND DOWNWARD DIRECTION - TIGHTEN SCREW TO REDUCE SPEED
SCREW-	7	ADJUSTMENT FOR DEPARTURE IN UPWARD DIRECTION - TIGHTEN SCREW FOR SOFT DEPARTURE (1)
SCREW-	8	ADJUSTMENT FOR VALVE "D" COUNTERPRESSURE - TIGHTEN SCREW TO INCREASE COUNTERPRESSURE
	9	PRESSURE GAUGE
SCREW-	11	CONTROL OF PRESSURE SEAL BY NONRETURN VALVE WITH STANDSTILL SYSTEM
SCREW-	20	ADJUSTMENT FOR DOWNWARD DIRECTION SPEED - TIGHTEN SCREW TO INCREASE SPEED
	E.A.	VALVE FOR HIGH SPEED IN UP/DOWNWARD DIRECTION
	E.B.	DOWNWARD DIRECTION VALVE
	L	PUSH BUTTON FOR MANUAL EMERGENCY IN DOWNWARD DIRECTION
	Pm	MANUAL PUSH BUTTON FOR STARTING EMERGENCY VALVE
	R	TAP TO CUT OFF PRESSURE GAUGE
SCREW-	U	DOWNWARD DEPARTURE DEVICE - TIGHTEN SCREW TO REDUCE SPEED (1)

NOTE (1): DO NOT TIGHTEN COMPLETELY, SINCE DEPARTURE MOVEMENT MAY BE INTERRUPTED



OPERATION

UPWARD

Xp0	→ X1	MOTOR SUPPLY AND E.A. VALVE EXCITATION ACCELERATION IN UPWARD DIRECTION - ADJUST USING SCREW 7
X1	→ X2	CONSTANT HIGH SPEED IN UPWARD DIRECTION - ADJUST USING SCREW 3
X2	→ X3	1ST DECELERATION PHASE FROM HIGH TO LOW SPEED - E.A. DE-ENERGIZED ADJUST USING SCREW 4
X3	→ X4	CONSTANT LOW SPEED IN UPWARD DIRECTION - ADJUST USING SCREW 6
X4	→ Xp1	2ND DECELERATION PHASE TO FLOOR LEVEL (MOTOR OFF)

DOWNWARD

Yp1	→ Y1	E.A./E.B. VALVES EXCITATION - ACCELERATION IN DOWNWARD DIRECTION ADJUST USING SCREW U
Y1	→ Y2	CONSTANT HIGH SPEED IN DOWNWARD DIRECTION - ADJUST USING SCREW 20
Y2	→ Y3	1ST DECELERATION PHASE - E.A. VALVE DE-ENERGIZED ADJUST USING SCREW 4
Y3	→ Y4	CONSTANT LOW SPEED IN DOWNWARD DIRECTION - ADJUST USING SCREW 6
Y4	→ Yp0	2ND DECELERATION PHASE TO FLOOR LEVEL - E.B. VALVE DE-ENERGIZED

NOTE: DURING THE DE-ENERGIZING PHASE OF E.A. VALVE, MAKE SURE THAT AFTER THE PHASE OF DECELERATION, THE DISTANCE AT WHICH LOW SPEED BEGINS IS AT LEAST 15/20 cm BEFORE LEVEL STOP

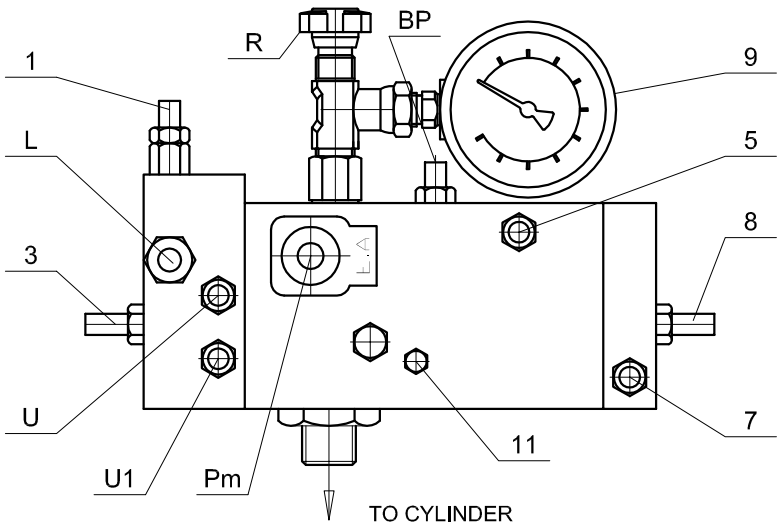
9233-ING

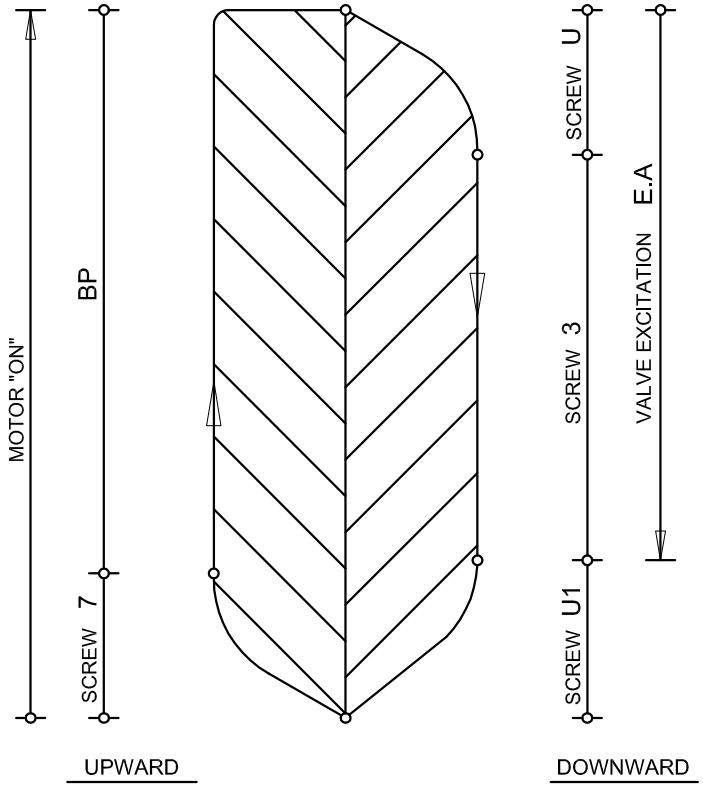
UT

ADJUSTMENT AND OPERATION SCHEME
OF DISTRIBUTOR FOR INDIRECT ACTING
AND DIRECT ON-LINE STARTING INSTALLATION
(DISTRIBUTOR "HL" 8/23 L/MIN)

DATE 08/16

DWG Nr. 9233





ADJUSTMENT

SCREW -	1	ADJUSTMENT FOR ROD COUNTERPRESSURE - TIGHTEN SCREW TO INCREASE COUNTERPRESSURE
SCREW -	3	ADJUSTMENT FOR SPEED BALANCING IN DOWN DIRECTION - TIGHTEN SCREW TO REDUCE SPEED
SCREW -	5	ADJUSTMENT FOR MAX. PRESSURE - TIGHTEN SCREW TO INCREASE PRESSURE
SCREW -	7	ADJUSTMENT FOR DEPARTURE IN UPWARD DIRECTION - TIGHTEN SCREW FOR SOFT DEPARTURE (1)
SCREW -	8	ADJUSTMENT FOR VALVE "D" COUNTERPRESSURE - TIGHTEN SCREW TO INCREASE COUNTERPRESSURE
	9	PRESSURE GAUGE
SCREW-	11	CONTROL OF PRESSURE SEAL BY NONRETURN VALVE WITH STANDSTILL SYSTEM
	E.A	DOWNWARD DIRECTION VALVE
	L	PUSH BUTTON FOR MANUAL EMERGENCY IN DOWNWARD DIRECTION
	Pm	MANUAL PUSH BUTTON FOR STARTING EMERGENCY VALVE
	R	TAP TO CUT OFF PRESSURE GAUGE
SCREW -	U	DOWNWARD DEPARTURE DEVICE - TIGHTEN SCREW TO REDUCE SPEED (1)
SCREW-	U1	ADJUSTMENT FOR DECELERATION PHASE - SCREW DOWN FOR A SOFT DECELERATION
SCREW-	3+8	ADJUSTMENT AND TEST OF SAFETY VALVE FOR ROD FAILURE - UNSCREW THEM IN SAFETY
	BP	BY-PASS REG. UPWARD CAPACITY FOR SPEED < 0.15 m/s (PRESET IN FACTORY)

NOTE (1): DO NOT TIGHTEN COMPLETELY, SINCE DEPARTURE MOVEMENT MAY BE INTERRUPTED

9233 / VMI-IT

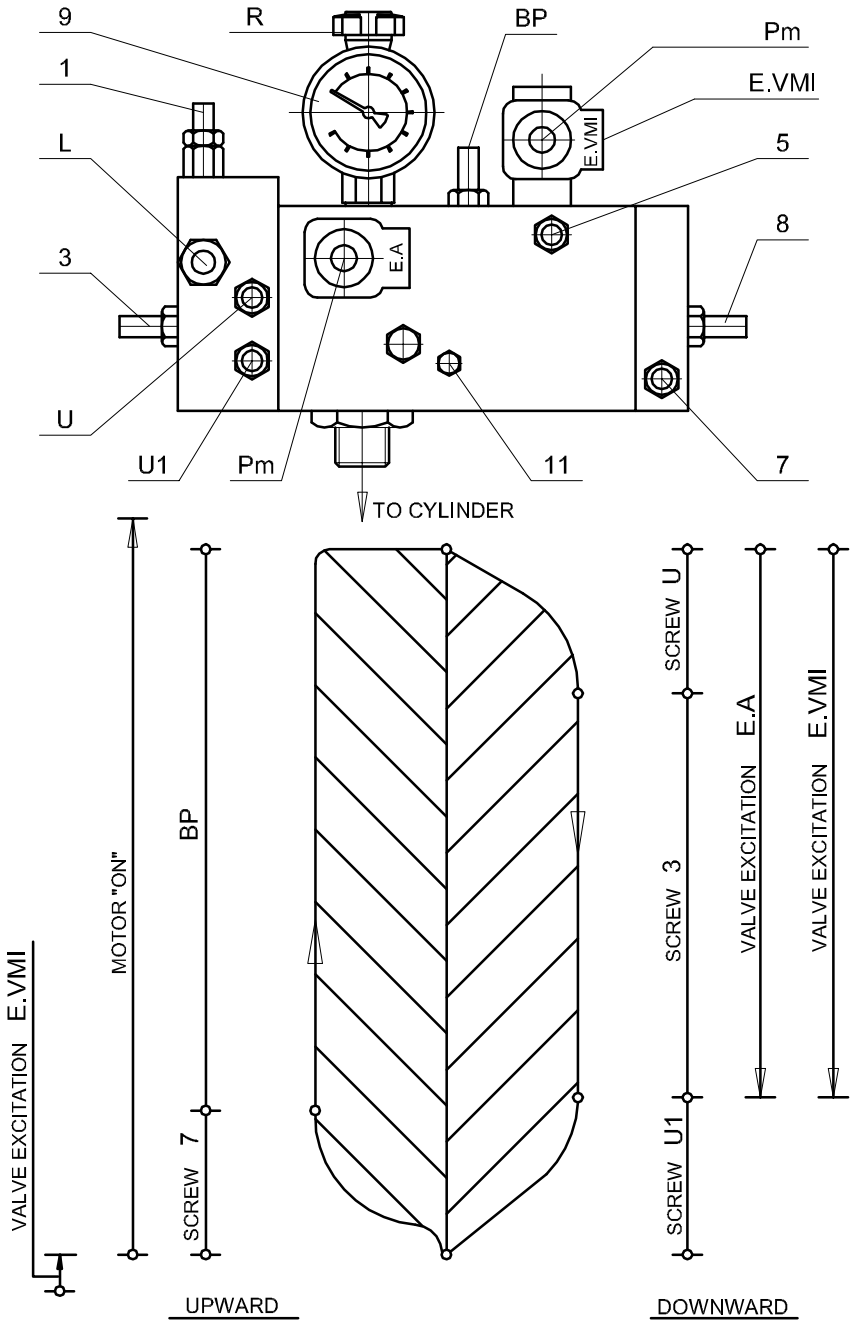
UT

ADJUSTMENT AND OPERATION SCHEME
OF DISTRIBUTOR FOR INDIRECT ACTING AND
DIRECT ON-LINE STARTING INSTALLATION (WITH VMI VALVE)

(DISTRIBUTOR "HL" 8/23 L/MIN)

DATE 08/16

DWG N. 9233 / VMI



ADJUSTMENT

SCREW -	1	ADJUSTMENT FOR ROD COUNTERPRESSURE - TIGHTEN SCREW TO INCREASE COUNTERPRESSURE
SCREW -	3	ADJUSTMENT FOR SPEED BALANCING IN DOWN DIRECTION - TIGHTEN SCREW TO REDUCE SPEED
SCREW -	5	ADJUSTMENT FOR MAX. PRESSURE - TIGHTEN SCREW TO INCREASE PRESSURE
SCREW -	7	ADJUSTMENT FOR DEPARTURE IN UPWARD DIRECTION - TIGHTEN SCREW FOR SOFT DEPARTURE (1)
SCREW -	8	ADJUSTMENT FOR VALVE "D" COUNTERPRESSURE - TIGHTEN SCREW TO INCREASE COUNTERPRESSURE
	9	PRESSURE GAUGE
SCREW -	11	CONTROL OF PRESSURE SEAL BY NONRETURN VALVE WITH STANDSTILL SYSTEM
	E.VMI	UNINTENTED MOVEMENT VALVE
	E.A	DOWNWARD DIRECTION VALVE
	L	PUSH BUTTON FOR MANUAL EMERGENCY IN DOWNWARD DIRECTION
	Pm	MANUAL PUSH BUTTON FOR STARTING EMERGENCY VALVE
	R	TAP TO CUT OFF PRESSURE GAUGE
SCREW -	U	DOWNWARD DEPARTURE DEVICE - TIGHTEN SCREW TO REDUCE SPEED (1)
SCREW -	U1	ADJUSTMENT FOR DECELERATION PHASE - SCREW DOWN FOR A SOFT DECELERATION
SCREW -	3+8	ADJUSTMENT AND TEST OF SAFETY VALVE FOR ROD FAILURE - UNSCREW THEM IN SAFETY
	BP	BY-PASS REG. UPWARD CAPACITY FOR SPEED < 0.15 m/s (PRESET IN FACTORY)

NOTE (1): DO NOT TIGHTEN COMPLETELY, SINCE DEPARTURE MOVEMENT MAY BE INTERRUPTED

9232-IN

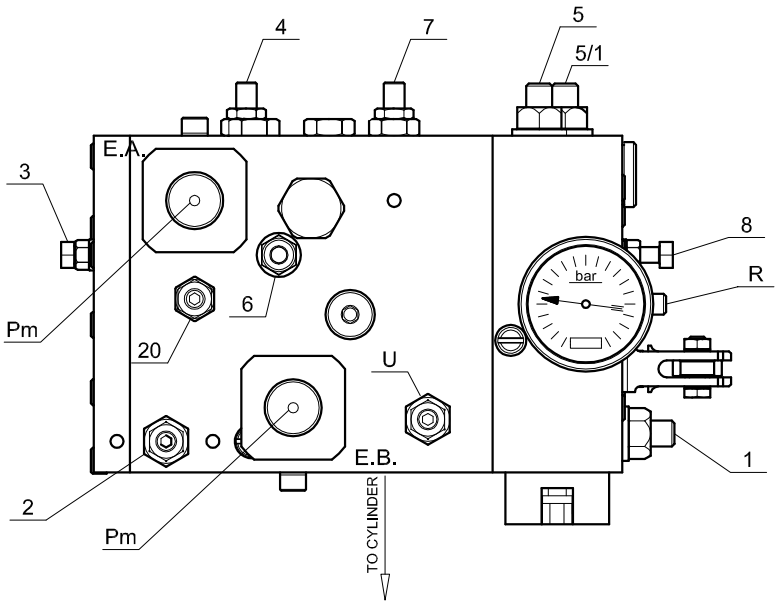
UT

ADJUSTMENT AND OPERATION SCHEME OF DISTRIBUTOR FOR INDIRECT ACTING AND DIRECT ON-LINE STARTING INSTALLATION

(DISTRIBUTOR MH2V FROM 8/30 L/MIN)

DATE 11/18

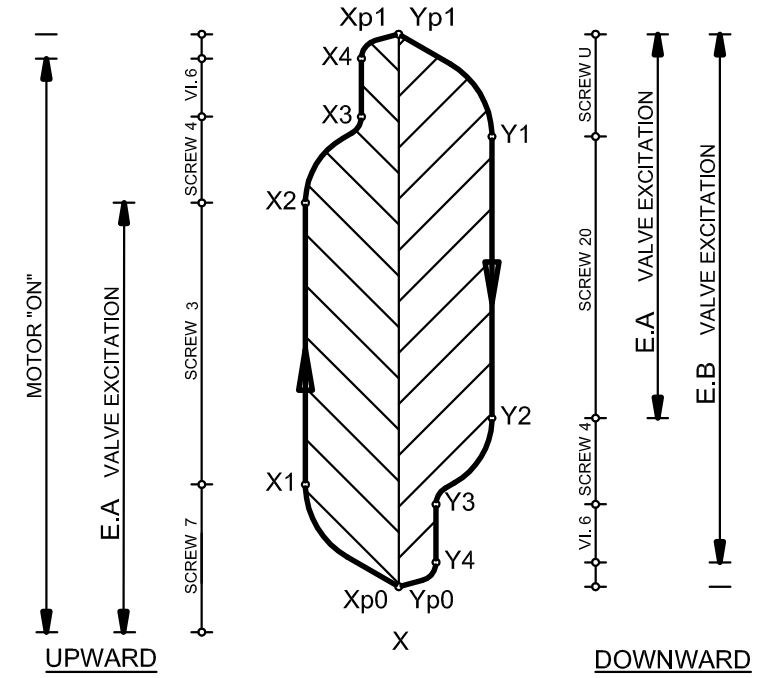
DWG N° 9232 2V-35



ADJUSTMENT

SCREW -	1	ADJUSTMENT FOR ROD COUNTERPRESSURE - TIGHTEN SCREW TO INCREASE COUNTERPRESSURE
SCREW -	2	ADJUSTMENT AND TEST OF SAFETY VALVE FOR ROD FAILURE (SEE DWG N°9345 2V-35)
SCREW -	3	ADJUSTMENT FOR HIGH SPEED BALANCING IN UP/DOWN DIRECTION - TIGHTEN SCREW TO REDUCE SPEED
SCREW -	4	ADJUSTMENT FOR 1ST DECELERATION PHASE - SCREW DOWN FOR A SOFT DECELERATION
SCREW -	5	ADJUSTMENT FOR MAX. PRESSURE - TIGHTEN SCREW TO INCREASE PRESSURE
SCREW -	5/1	REG. MAX PRESSURE HAND PUMP - UNSCREWING INCREASES PRESSURE
SCREW -	6	ADJUSTMENT FOR LOW SPEED IN UPWARD AND DOWNWARD DIRECTION TIGHTEN SCREW TO REDUCE SPEED
SCREW -	7	ADJUSTMENT FOR DEPARTURE IN UPWARD DIRECTION - TIGHTEN SCREW FOR SOFT DEPARTURE (1)
SCREW -	8	ADJUSTMENT FOR VALVE "D" COUNTERPRESSURE - TIGHTEN SCREW TO INCREASE COUNTERPRESSURE
SCREW -	20	ADJUSTMENT FOR DOWNWARD DIRECTION SPEED - TIGHTEN SCREW TO INCREASE SPEED
	E.A	VALVE FOR HIGH SPEED IN UP/DOWNWARD DIRECTION
	E.B	DOWNWARD DIRECTION VALVE
	L	PUSH BUTTON FOR MANUAL EMERGENCY IN DOWNWARD DIRECTION
	Pm	MANUAL PUSH BUTTON FOR STARTING EMERGENCY VALVE
	R	TAP TO CUT OFF PRESSURE GAUGE
SCREW -	U	DOWNWARD DEPARTURE DEVICE - TIGHTEN SCREW TO REDUCE SPEED (1)

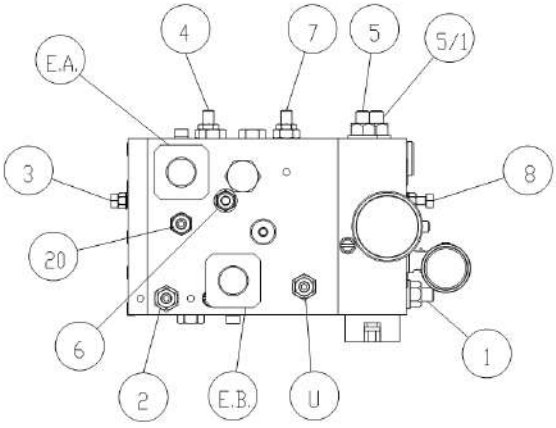
NOTE (1): DO NOT TIGHTEN COMPLETELY, SINCE DEPARTURE MOVEMENT MAY BE INTERRUPTED



OPERATION

UPWARD	X	→ Xp0	INSERTING ELECTRIC MOTOR, REG. DELAY HYDRAULIC THROUGH SCREW 7/a
	Xp0	→ X1	MOTOR SUPPLY AND E.A. VALVE EXCITATION ACCELERATION IN UPWARD DIRECTION - ADJUST USING SCREW 7
	X1	→ X2	CONSTANT HIGH SPEED IN UPWARD DIRECTION - ADJUST USING SCREW 3
	X2	→ X3	1ST DECELERATION PHASE FROM HIGH TO LOW SPEED - E.A. DE-ENERGIZED ADJUST USING SCREW 4
	X3	→ X4	CONSTANT LOW SPEED IN UPWARD DIRECTION - ADJUST USING SCREW 6
	X4	→ Xp1	2ND DECELERATION PHASE TO FLOOR LEVEL (MOTOR OFF)
DOWNWARD	Yp1	→ Y1	E.A./E.B. VALVES EXCITATION - ACCELERATION IN DOWNWARD DIRECTION ADJUST USING SCREW U
	Y1	→ Y2	CONSTANT HIGH SPEED IN DOWNWARD DIRECTION - ADJUST USING SCREW 20
	Y2	→ Y3	1ST DECELERATION PHASE - E.A. VALVE DE-ENERGIZED ADJUST USING SCREW 4
	Y3	→ Y4	CONSTANT LOW SPEED IN DOWNWARD DIRECTION - ADJUST USING SCREW 6
	Y4	→ Yp0	2ND DECELERATION PHASE TO FLOOR LEVEL - E.B. VALVE DE-ENERGIZED

NOTE: DURING THE DE-ENERGIZING PHASE OF E.A. VALVE, MAKE SURE THAT AFTER THE PHASE OF DECELERATION, THE DISTANCE AT WHICH LOW SPEED BEGINS IS AT LEAST 15/20 cm BEFORE LEVEL STOP

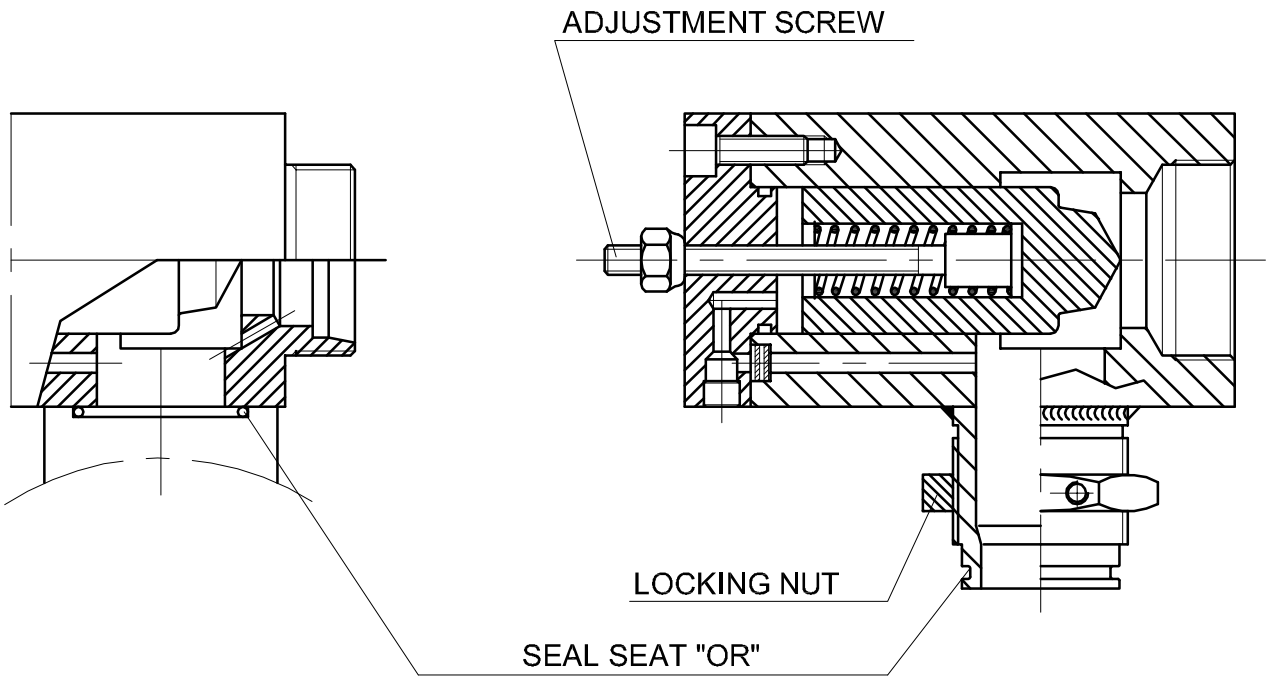


Performance		Screw	Setting	Setting Effect
Rise	By pass pressure	8	↷	Increase
	Acceleration	7 *	↷	Soft
	Max speed	3	↷	Decrease speed
	Deceleration	4 *	↷	Soft
	Low speed	6	↷	Decrease speed
Descent	Acceleration	U *	↷	Soft
	Max speed	20	↷	Increase speed
	Deceleration	4	↷	Soft
	Low speed	6	↷	Decrease speed
Overpressure		5	↷	Increase
Overpressure hand pump		5/1	↷	Increase
Minimum pressure		1	↷	Increase

* Setting very sensitive MAX 1/6 round at time

For rupture valve test on the jack, rotate ↷ screw n° 2

UT	CONTROL VALVE MH2V	DATE 11/18
		DWG N. **2V-35**



TYPE: *3/4" - *1"1/4 - 1"1/2

TYPE: 2"

* FOR HL POWER UNIT

OPERATING TEST:

A - PREPARE THE CAR FULLY CHARGED (SEE POINT 4) AND SEND IT TO THE HIGHEST LEVEL.

B - LOCK ON THE DISTRIBUTOR GROUP SCREW N. 2 AND UNSCREW SCREW N. 8.
(FOR VALVE 3/4" ONLY: SCREW N. 3 AND N. 8 IN SAFETY UNSCREW)
(FOR VALVE MH2V: TIGHTEN ONLY THE SCREW N°2)

C - SET A DOWNWARD RUNNING SO THAT THE CAR WILL GO DOWN FASTER THAN THE NOMINAL SPEED.

D - THE VALVE MUST BE ABLE TO STOP THE DESCENDING CAB AND TO KEEP IT STILL AT THE LATEST WHEN THE SPEED REACHES A VALUE EQUAL TO THE NOMINAL DOWN STROKE SPEED "Vd'" INCREASED OF 0.3 m/s.

E - WHEN THE CHECK HAS BEEN TERMINATED WITH THE CAR IN STOP POSITION, RESET THE ADJUSTEMENT SCREW N.2 (UNSCREW OF 3.5 TURNS) AND N. 8 (FOR VALVE 3/4" ONLY: SCREW N. 3 AND N. 8) TO THE ORIGINAL CONDITION.
(FOR VALVE MH2V: EMPTY COMPLETELY SCREW N°2)

NOTE:

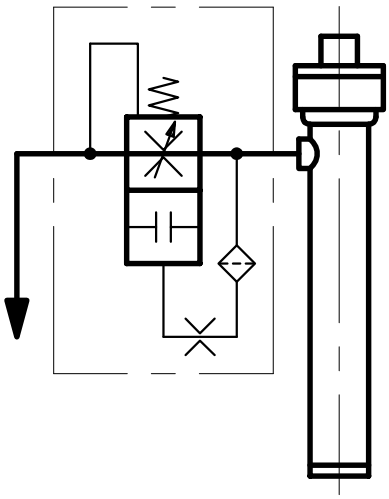
1) IF DURING THE CHECK THE VALVE DOES NOT OPERATE TAKE OFF THE CAP AND THE ADJUST THE VALVE BY TURNING 1/4 OF A ROUND AT A TIME, REPEAT THE CHECK UNTIL IT FUNCTIONS.

2) THE VALVE CAN BE ORIENTATED IN ANY DIRECTION.

3) THE VALVE IS ALREADY CALIBRATED.

4) FOR SYSTEMS WITH TO OR MORE PISTONS, EACH FITTED WITH A STOP VALVE, THE FIRST TEST MUST BE CARRIED OUT WITH A MIN. LOAD, BEFORE INCREASING THE WEIGHT UNTIL REACHING THE MAX.
LOAD IN TWO POINTS AT LEAST (HALFWAY AND MAX.) TO CHECK THE OPERATION.

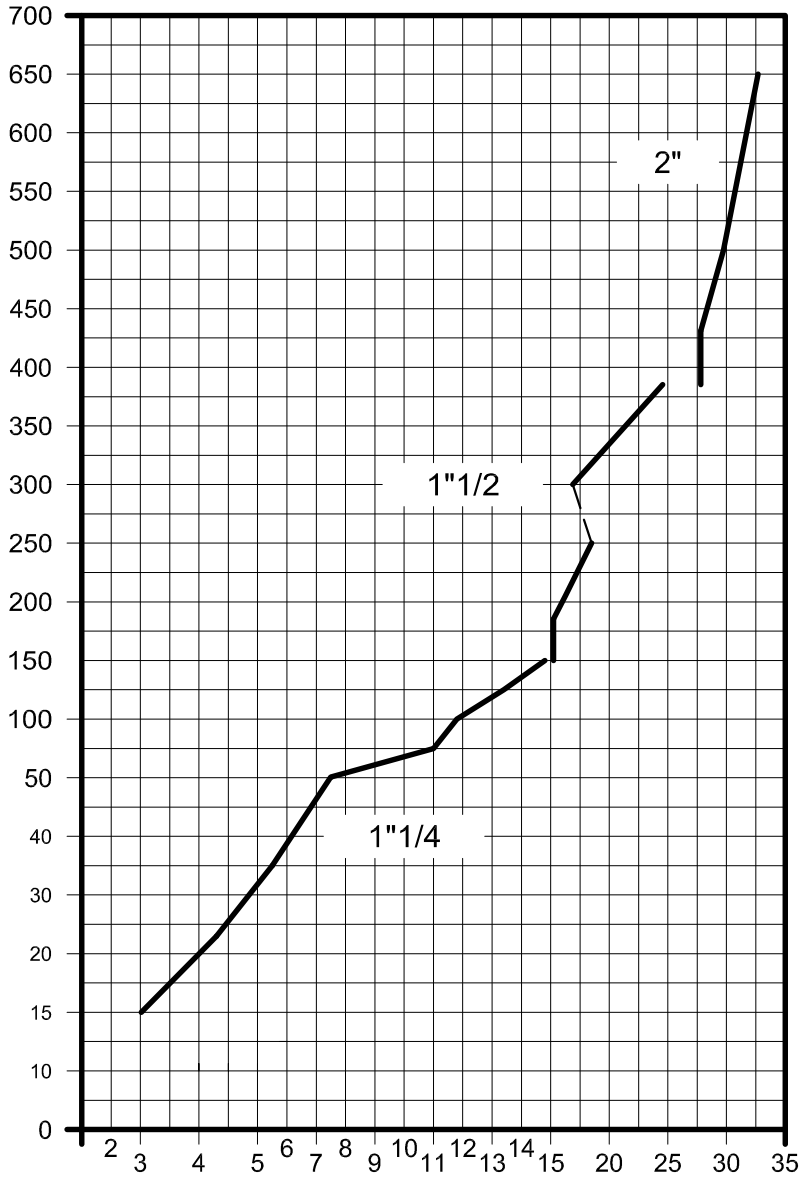
UT	FUNCTIONAL CHECKING OF THE ADJUSTABLE STOP VALVE CE	DATE 08/16
		DWG N. 9345-2V-35



- RAM SPEED AFTER VALVE INTERVENTION

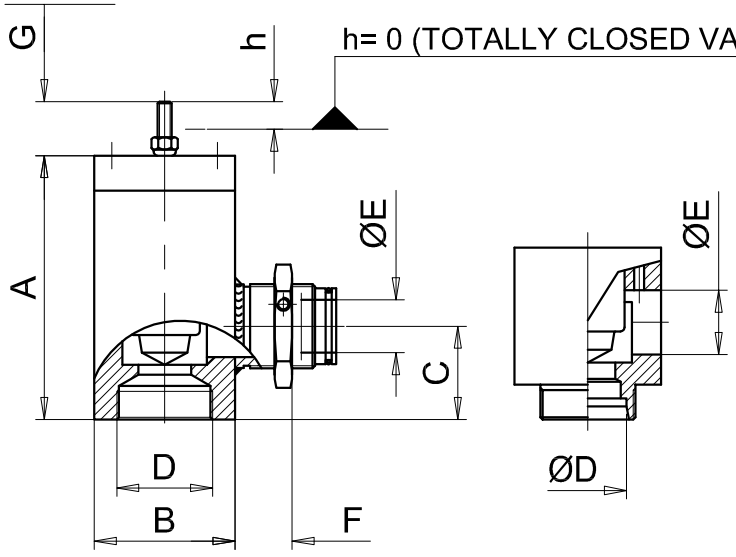
Vd = 0 (m/s)

Qn (l/1') NOMINAL FLOW RATE DOWNWARD



VALUE BROUGHT FORWARD ON THE TESTING CERTIFICATE OF THE GEARCASE

NOTE: DATA TAKEN WITH:
- STATIC PRESSURE = 35 BAR
- OIL TEMPERATURE = 35°C



TYPE: 2"

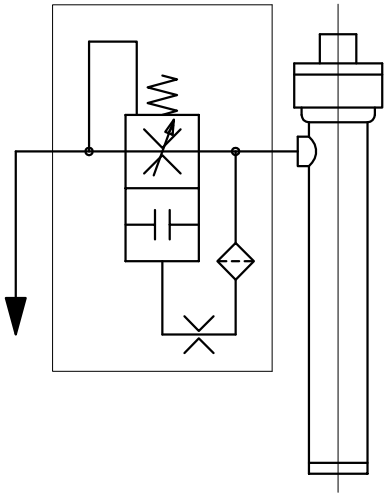
TYPE: 1"1/4 - 1"1/2

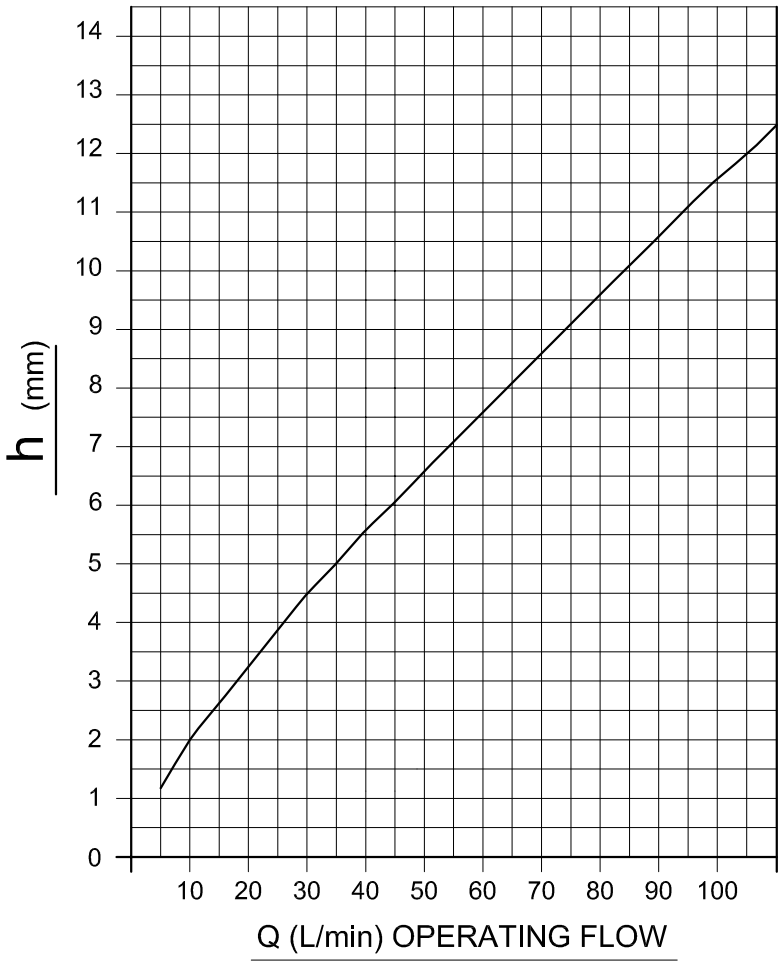
		1" 1/4	1" 1/2	2"
Qn	MIN	15	151	381
	MAX	150	380	650
A		132	153	186
B		⌀70	⌀70	⌀75
C		56	56	63
D		28 35	42	2"/F
E		25	30	40
F		/	/	24

UT	DIMENSIONING AND REGULATION OF THE ADJUSTABLE STOP VALVE 1"1/4; 1"1/2; 2" CE	DATE 07/18
		DWG N. 9346

N.B: Q=operating flow
Qn=nominal flow

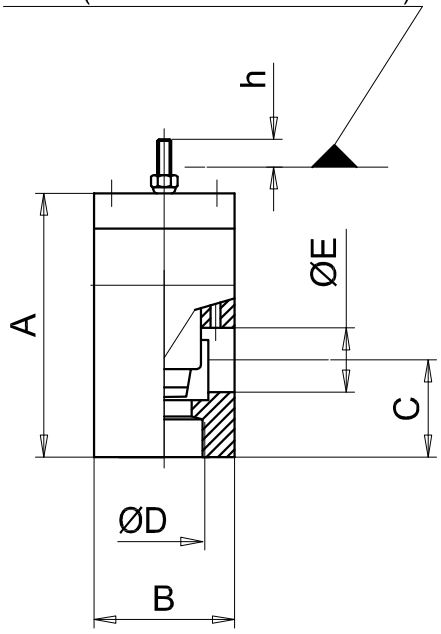
MANUAL ADJUSTMENT GRAPH:
1) CLOSE THE SCREW COMPLETELY (h=0)
2) ACCORDING TO Q (L/min), UNSCREW OF h (mm)





- RAM SPEED
AFTER VALVE
INTERVENTION:
Vd = 0 (m/s)

START VALUE FOR
MANUAL REGULATION
h = 0 (TOTALLY CLOSED VALVE)



Qn	MIN	8 L/min
	MAX	75 L/min
P	MIN	12 Bar
	MAX	80 Bar
T	MIN	10°C
	MAX	60°C
A		100
B		⌀50
C		40
D		3/4"
E		18

Table adjustment h in function of the nominal pump flow

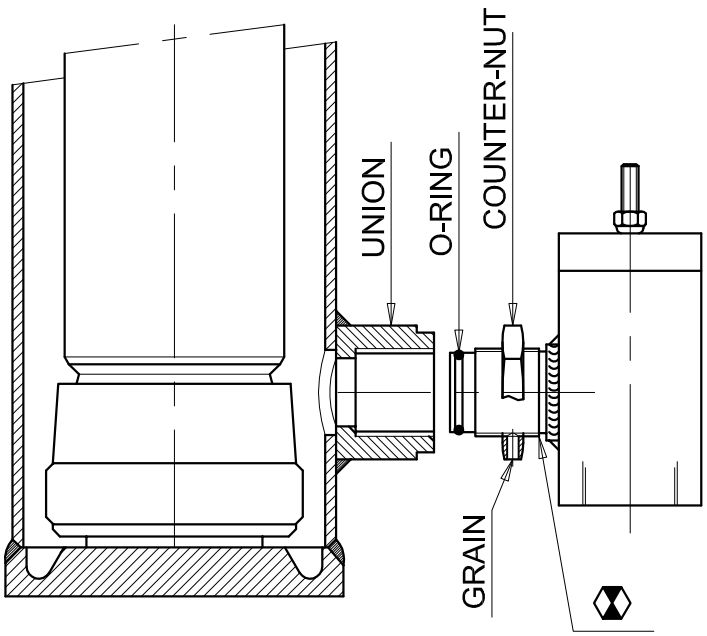
Nominal pump flow Qn [L/min]	h [mm]
8	2,6
12	3,5
18	4,5
23	5,0
30	5,5
35	6,2
45	7,6
55	8,9
75	11,3

NOTE:

DATA TAKEN WITH:
- STATIC PRESSURE = 30 BAR
- OIL TEMPERATURE = 30°C

UT	PROCEDURE FOR ADJUSTMENT OF LOCK VALVE 3/4" HP (0825/P-VP22-HP)	DATE 03/17
		DWG N° 9346/2

TYPE: 2"



- THE VALVE HAS TO BE DIRECTLY SCREWED ON PISTON UNTIL IT STOPS (MECHANICAL LEDGE).
  - WITH COUNTER NUT IN LEDGE ON THE UNION, I HAVEN'T SEE THE THREAD.

- POSSIBLE ORIENTATION ON 360° UNSCREWING IT BY ONE TURN (MAX POSSIBLE FOR O-RING SEAL)

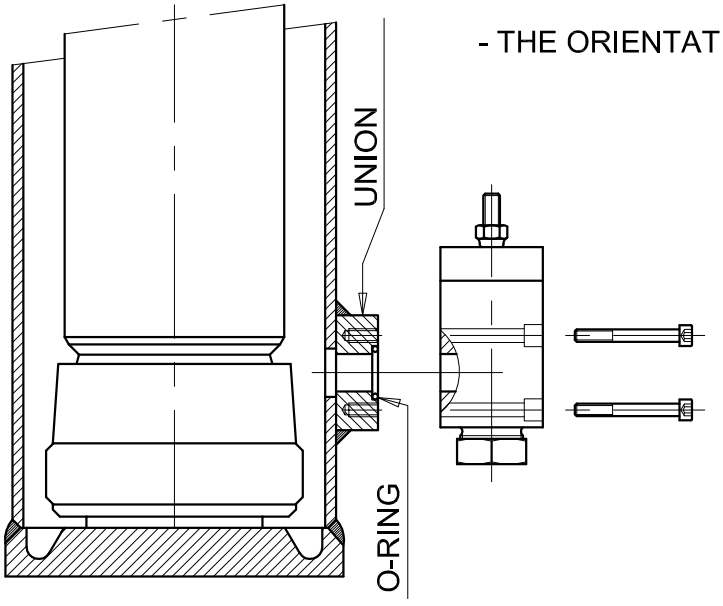
- SCREW THE COUNTER-NUT UP TO MECHANICAL LEDGE (SIDE OF THE UNION SOLDERED TO THE CYLINDER)

- SCREW THE GRAIN ON THE COUNTER-NUT, TO THE BODY VALVE

* FOR HL POWER UNIT
TYPE: *1"1/4 - 1"1/2

- THE VALVE HAS TO BE DIRECTLY MOUNTED ON THE PISTON USING:
  - TYPE 1"1/4 - 1"1/2: N° 4 SCREWS M8 (OVERAGE TIGHTENING TORQUE = 23.0 Nm)

- THE ORIENTATION IS POSSIBLE FOR ALL 90°

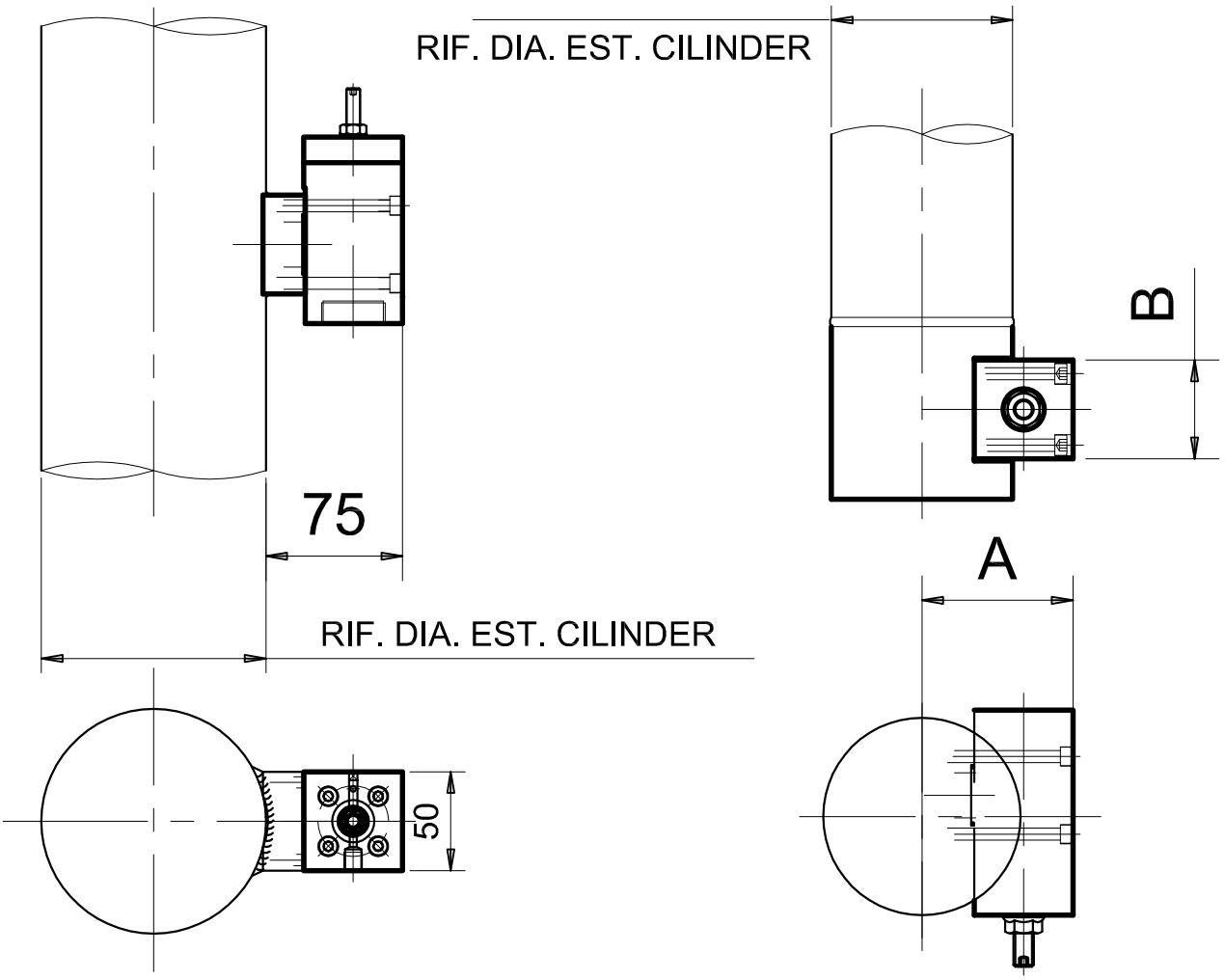


NOTE: REMEMBER TO VERIFY THAT THE SEAL O-RING GASKET IT IS ALWAYS INSERTED

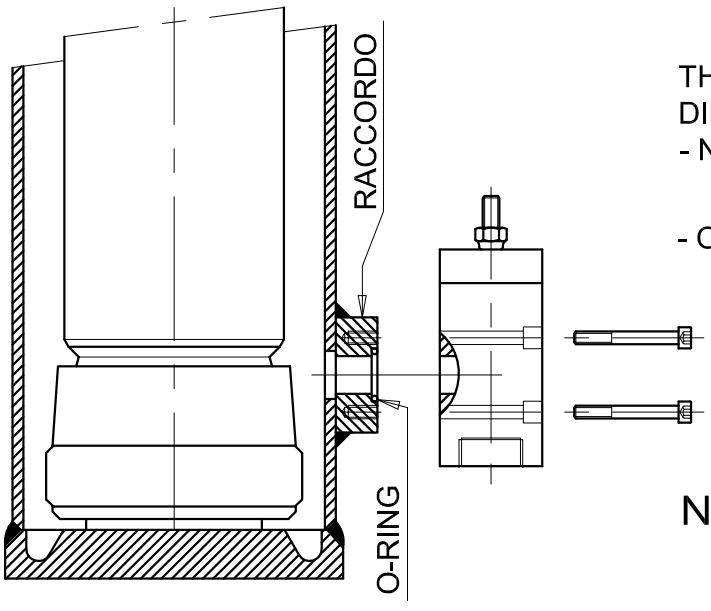
UT			PROCEDURE FOR MOUNTING THE ADJUSTABLE LOCKING VALVE	DATE 11/18
				DWG N. 9348

VP ON STANDARD CILINDER

VP ON MCE CILINDER



STELO Ø	Ø70	Ø80
A	75	79
B	50	50

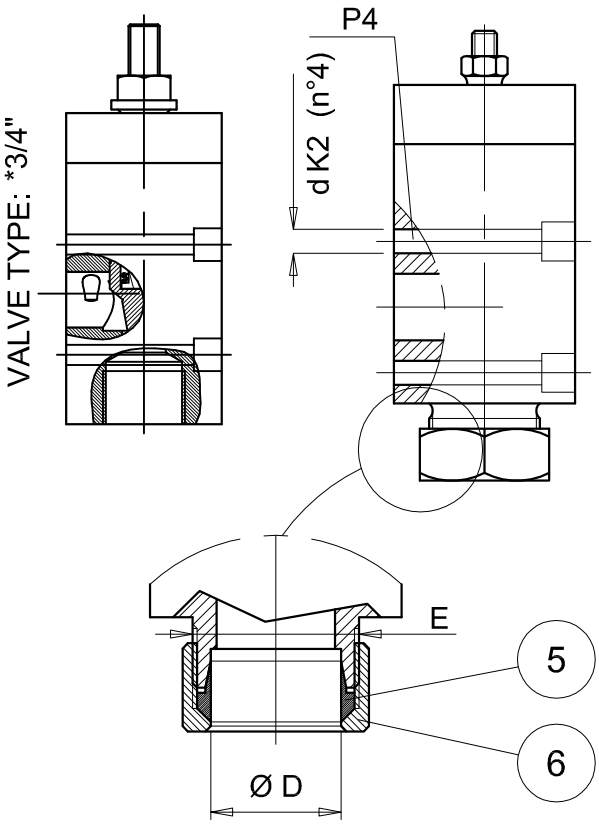


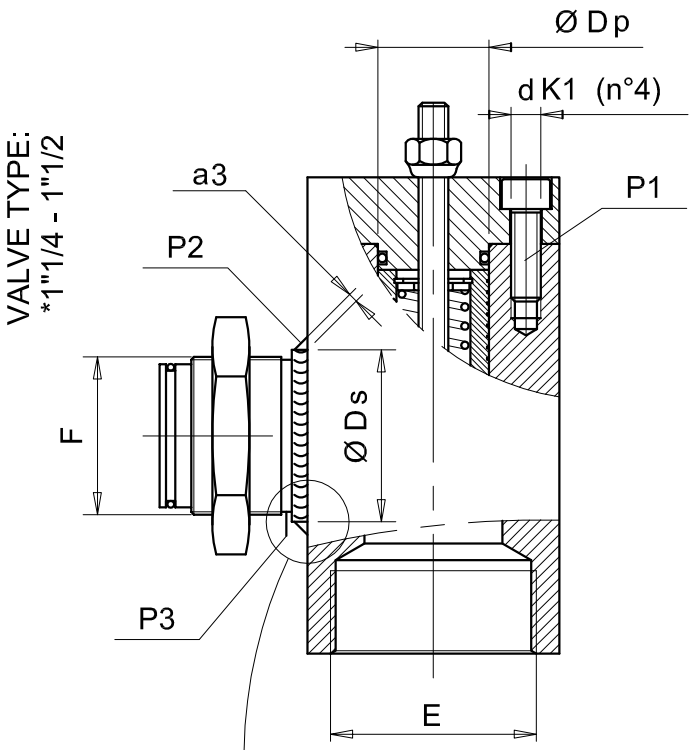
THE VALVE MUST BE INSTALLED
DIRECTLY ON THE RAM WITH:
- N° 4 SCREWS M6 (OVERAGE TIGHTENING TORQUE = 9.5 Nm)
- ORIENTATION POSSIBLE FOR ALL 90°

NB: REMEMBER TO VERIFY
THAT THE SEAL O-RING GASKET
IT IS ALWAYS INSERTED

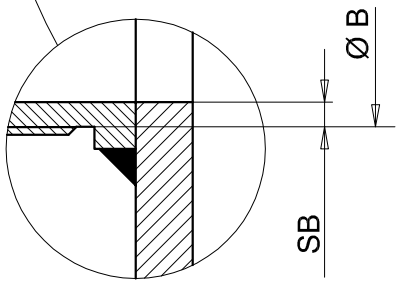
UT			ASSEMBLY PROCEDURE TO THE RAM OF THE LOCK VALVE 3/4" HP (0825/P-VP22-HP)	DATE 03/17
				DWG N° 9348/1

9348/1-IN





VALVE TYPE: 2"



* FOR HL POWER UNIT

		VALVE TYPE			
		*3/4" (8-75 L/1')	*1"1/4 (15-150 L/1')	1"1/2 (151-380 L/1')	2" (381-650 L/1')
BEGINNING DATA	a 3	/	/	/	5.0
	B	/	/	/	56.5
	d K1	6.0	8.0	8.0	8.0
	D	22.0	28.0 / 35.0	42.0	/
	d K2	6.0	8.0	8.0	/
	D p	22.0	30.0	40.0	53.0
	D s	/	/	/	65.0
	E	Nut thread M30x2 / M36x2	Male thread M36x2 / M45x2	Male thread M52x2	Nut thread 2" G
	F	/	/	/	2" G
	n°	4	4	4	4
	SB	/	/	/	4.75
	$R_{p0.2}$	*	*	*	*
	PIPE FLEX	3/4" / 1"	1" / 1"1/4	1"1/2	2"
MAX PRESSURES CALCULATED	P1	115.6	172.7	97.1	55.3
	P2	/	/	/	131.1
	P3	/	/	/	90.4
	P4	75.6	84.0	84.0	/

- THE MAX. WORKING PRESSURE OF THE SMALLER AMONG INDICATED ONES (EN BAR)

UT			INITIAL DATA AND MAX PRESSURE CALCULATED FOR THE BLOCK VALVE INSPECTION / FLOW LIMIT	DATE 07/18
				DWG Nr. 9065/1

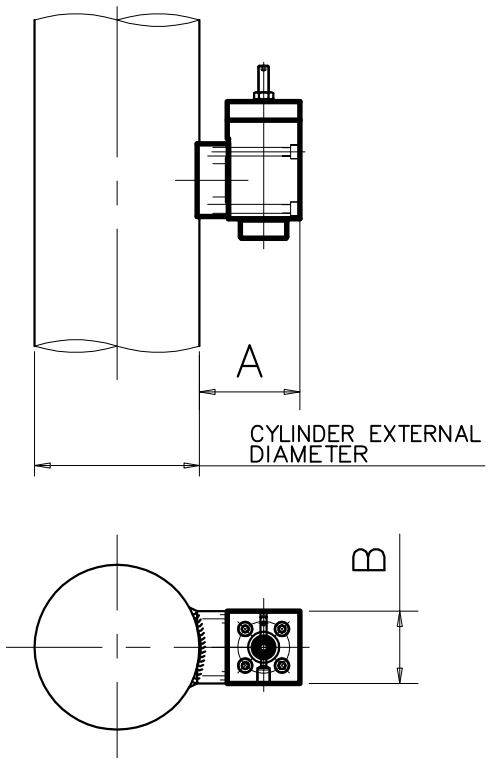
9305-ING

UT

	RUPTURE VALVE MODEL		
	1"1/4	1"1/2	2"
RUPTURE VALVE	0393/P-....	0425/P-....	0689/P-....
A	99	99	136
B	70	70	75

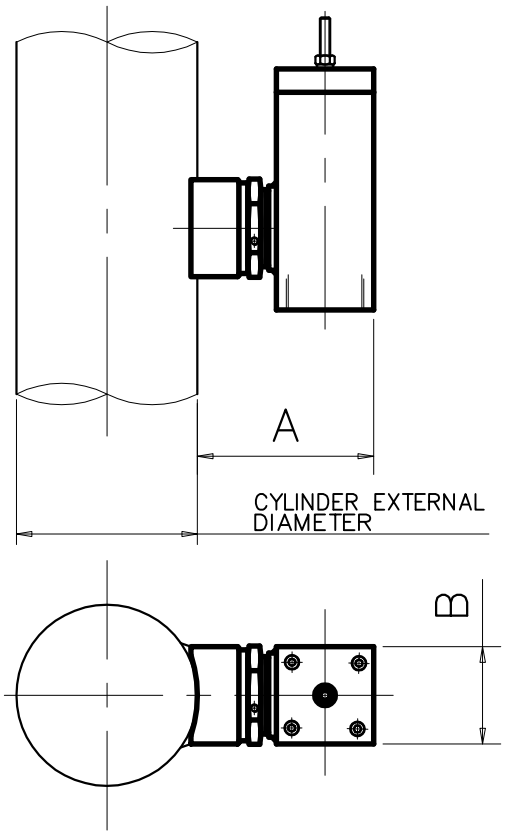
DIMENSIONS FOR RUPTURE VALVE: (1"1/4 - 1"1/2)

(REF. DWG. 9130; 9140; 9150) Chapter 3



DIMENSIONS FOR RUPTURE VALVE: (2")

(REF. DWG. 9130; 9140; 9150) Chapter 3



DIMENSIONS OF CYLINDER WITH RUPTURE VALVES

DATE 11/18

DWG Nr 9305