



**Macchine Oleodinamiche
Riduttori Impianti Speciali**

Via per Cadrezzate, 21/C • 21020 BREBBIA (VA) • Italy

Tel. ++39-0332-984211 • Fax ++39-0332-984280

E-Mail: moris@moris.it

POWER UNIT FOR PASSENGERS AND GOODS LIFT

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UT		ASSEMBLY USE AND MAINTENANCE MANUAL	DATE 04/21
			DWG N. 9001/MI-IN

INDEX

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Dwg. 9065/1

UT			INDEX ASSEMBLY AND USE MANUAL	DATE 10/19
				DWG N. IN-AEM

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

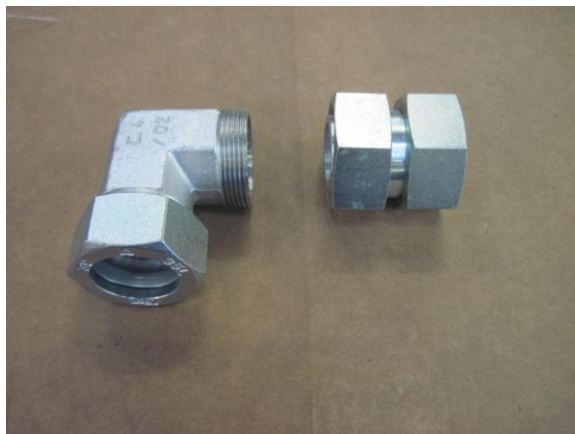
- THIS POWER UNIT HAS BEEN FACTORY SET.
- READ THE ENCLOSED INSTRUCTIONS CAREFULLY BEFORE TO ADJUSTING ANY OF THE SCREW.

0553/IN

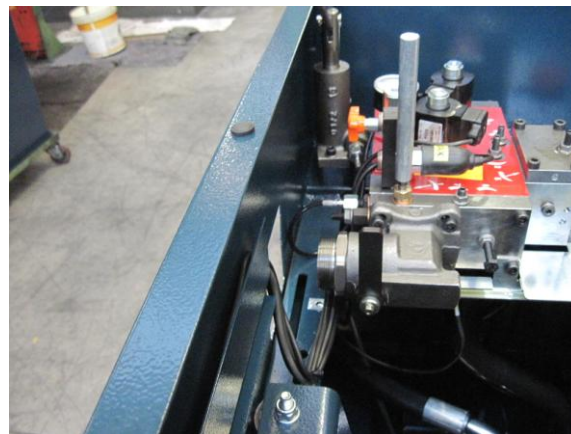
UT			General instructions for connection motor and solenoid valves power unit	DATE	10/08
				DWG Nr	0985/IN

KIT per uscita centralina orizzontale KIT for horizontal outlet poxer unit

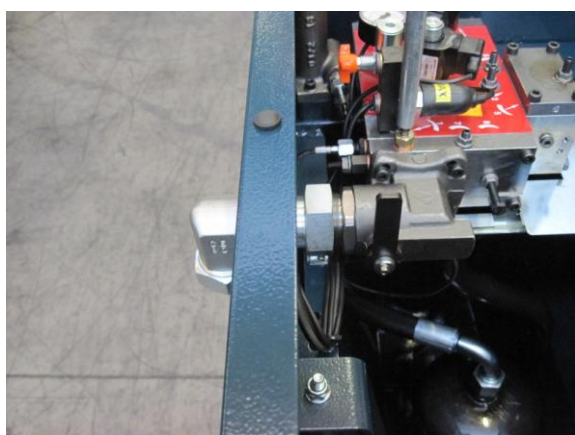
1



2



3



4



Codice articolo Item number	Descrizione Description
KIT.RACC/ORR35	Raccordo 90° tubo-tubo per attacco tubo flessibile da 1"1/4 (o barra tubo Ø 35mm) + raccordo con dado girevole femmina-femmina 90° fitting for 1"1/4 flex hose (or Ø 35mm rigid pipe) + straight coupling with swivel nut
KIT.RACC/ORR42	Raccordo 90° tubo-tubo per attacco tubo flessibile da 1"1/2 (o barra tubo Ø 42mm) + raccordo con dado girevole femmina-femmina 90° fitting for 1"1/2 flex hose (or Ø 42mm rigid pipe) + straight coupling with swivel nut

Montaggio: tramite il dado girevole, bisogna fissare adeguatamente il raccordo femmina-femmina sull'uscita della valvola a sfera. Una volta fissato detto raccordo, bisogna fissare adeguatamente ad esso il raccordo a 90° descritto nella tabella soprastante. Infine, dopo aver tolto il dado e l'ogiva, a questo raccordo andrà poi avvitata o la Vostra tubazione flessibile con attacco diretto oppure andrà fissata adeguatamente, tramite l'utilizzo del dado e dell'ogiva di cui il raccordo stesso è provvisto, la Vostra barra tubo.

Assembly: using the nut, adequately attach the straight coupling with swivel nut at the outlet of the ball valve. Once this coupling is attached, adequately attach the 90° fitting to it following the table above. Finally, after removing the nut and nicking edge, screw on your hose with direct attachment, or else, using the fitting's nut and nicking edge, adequately attach your rigid pipe using the nut and the nicking edge provided with the fitting.

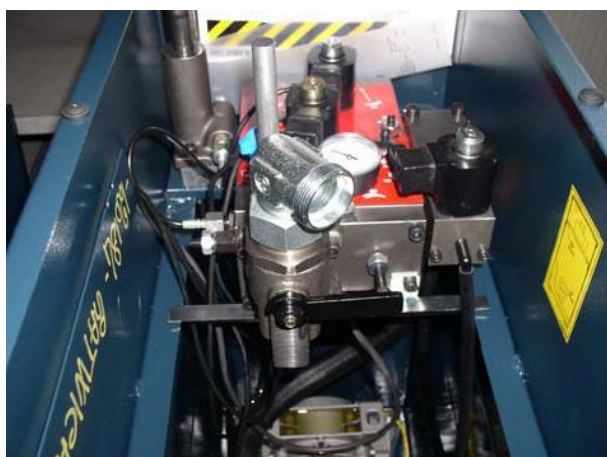
Rev 02

KIT per uscita centralina verticale KIT for vertical outlet poxer unit

1



2



3



4

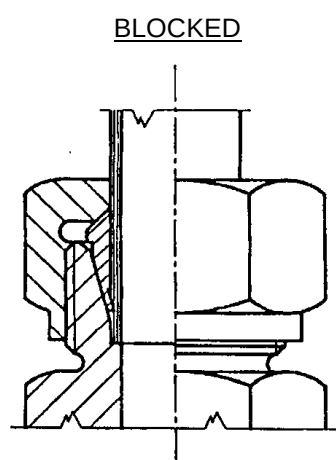
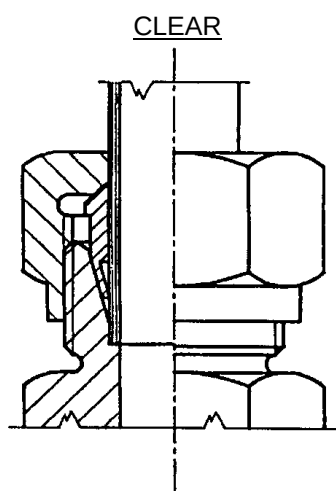


Codice articolo Item number	Descrizione Description
KIT.RACC/VER28	Raccordo speciale a 90° per attacco tubo flessibile da 1" (o barra tubo Ø 28 mm) Special 90° elbow connection for 1" flex hose (or Ø 28 mm rigid pipe)
KIT.RACC/VER35	Raccordo speciale a 90° per attacco tubo flessibile da 1"1/4 (o barra tubo Ø 35 mm) Special 90° elbow connection for 1"1/4 flex hose (or Ø 35 mm rigid pipe)
KIT.RACC/VER42	Raccordo speciale a 90° per attacco tubo flessibile da 1"1/2 (o barra tubo Ø 42 mm) Special 90° elbow connection for 1"1/2 flex hose (or Ø 42 mm rigid pipe)

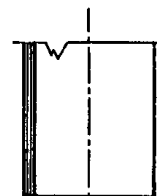
Montaggio: togliere il dado e l'ogiva posti sull'uscita della valvola a sfera e avvitare adeguatamente il raccordo speciale a 90° di cui nella tabella sopra. A questo raccordo andrà poi avvitato direttamente o la Vostra tubazione flessibile con attacco diretto oppure andrà fissata adeguatamente, tramite l'utilizzo del dado e dell'ogiva sopra menzionati, la Vostra barra tubo.

Assembly: remove the nut and the nicking edge from the outlet of the ball valve and appropriately tighten the special 90° fitting following the above table. Then, your hose with direct attachment will be directly screwed to this fitting, or else your rigid pipe will be adequately attached using the nut and the nicking edge noted above.

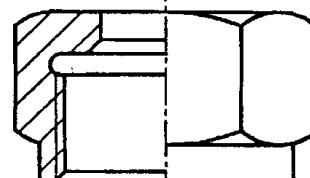
04/09



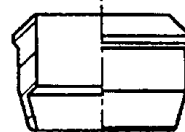
PIPING



LOCK NUT

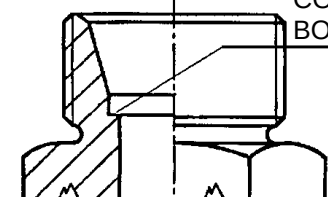


NICKING RING



NICKING EDGE

END JOINT

COUNTER-
BORING

- 1) FOLLOW THE CUT OF THE PIPE CLOSELY AT RIGHT ANGLES.
- 2) THE PIPE MUST BE FREE OF BURR OR ANY INTERNAL IMPURITIES.
- 3) THE RING AND THREADS MUST BE LUBRICATED DURING INSTALLATION.
- 4) FIRSTLY INSERT THE LOCK NUT AND THEN THE NICKING RING WITH THE NICKING EDGE TURNED TOWARDS THE END JOINT.
- 5) THE PIPE MUST THEN BE INSERTED INTO THE END JOINT AND MUST REST AGAINST THE COUNTERBORING. THE LOCK NUT MUST THEN BE TIGHTEND BY HAND AS FAR AS POSSIBLE.
- 6) TAKE A SPANNER WITH AN EXTENSION, AND TIGHTEN THE LOCK NUT AT LEAST 1 AND $\frac{1}{2}$ TURNS UNTIL THE NICKING EDGE TOUCHES THE PIPE (AS SHOWN ABOVE)
- 7) LOOSEN THE LOCK NUT, CHECKING THAT THE NICKING RING IS ABOUT 5 mm PROJECTING FROM THE PIPE OUTSIDE: CHECK THAT IT DOES NOT MOVE FROM THIS POSITION, AND THAT AT THE NICKING POINT THERE IS AN EVEN RIM THAT SHOWS THE OCCUREDE NICKING.
- 8) PROCEED WITH THE TIGHTENING AND BLOCKING OF LOCK NUT.

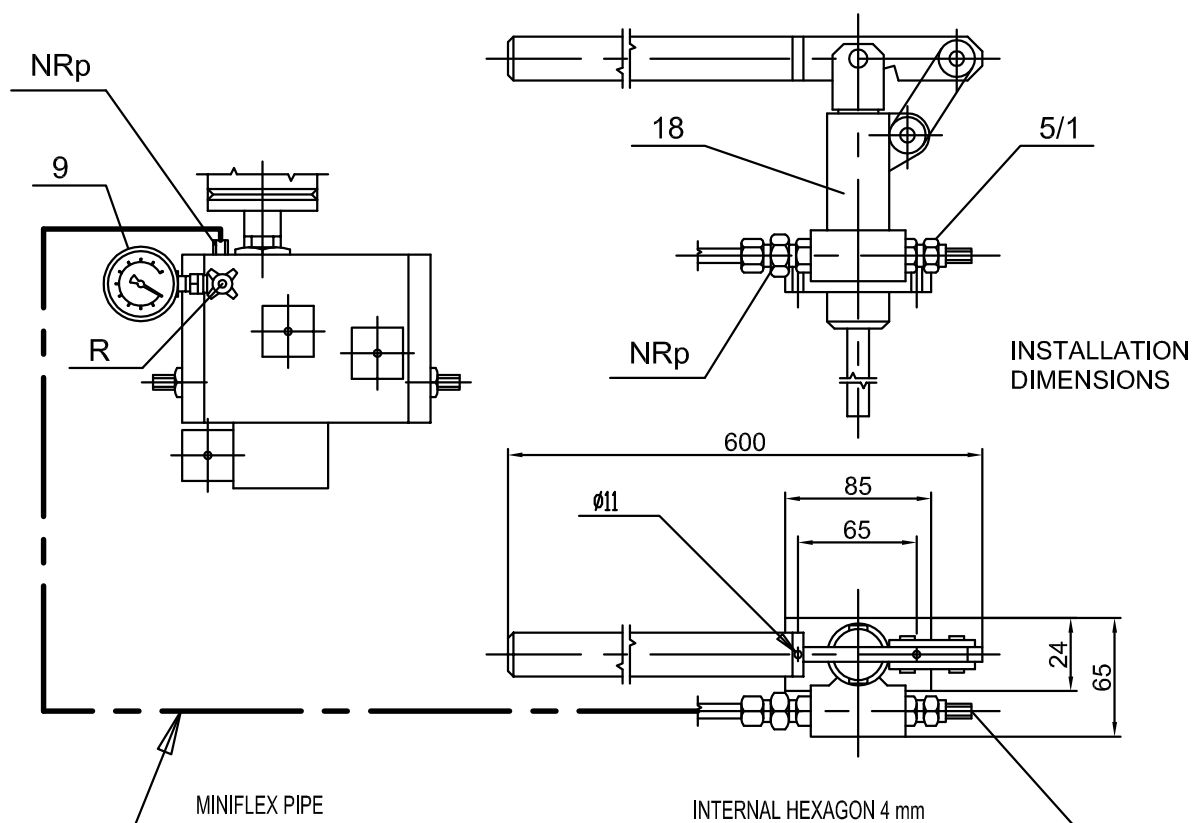
UT

INSTRUCTIONS FOR THE CORRECT INSTALLATION OF THE PIPE-WORK

DATE 07/00

DWG N 9300

TECHNICAL DATA: FLOW RATE FOR EVERY CYCLE 12 cm³
MAX. ADMISSIBLE PRESSURE 110 bar

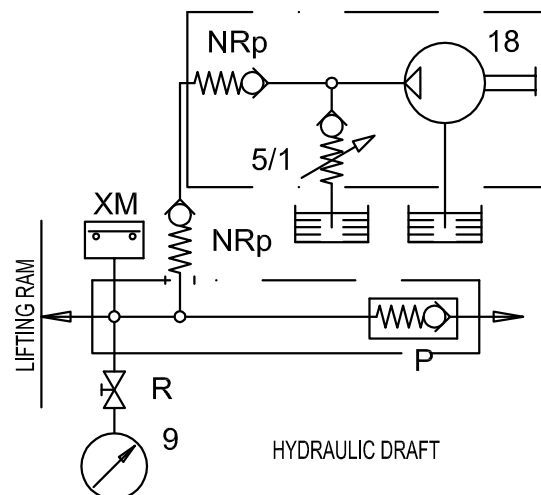


18- HAND PUMP

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 "P" AND THE PRESSURE
GAUGE "9"



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					DATE	12/07
					DWG N.	9405

HAND PUMP

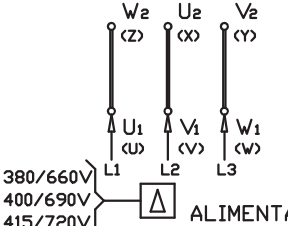
1		MOTOR THERMOSTAT (MAX - 2.5 V)
2		
3		C.E.+ C.E.M. COMMON COILS 48/80 Vcr - 12 Vcc
4		E.A UP/DOWNWARD HIGH SPEED VALVE
5		E.B DOWNWARD VALVE
6		EM.-E.A (**)
7		EM.-E.B DOWNWARD EMERGENCY COIL
8		E. λ/Δ STAR DELTA VALVE
9		
10		
11		
12		220 V PREHEATING OIL DISTRIBUTOR

Ø14

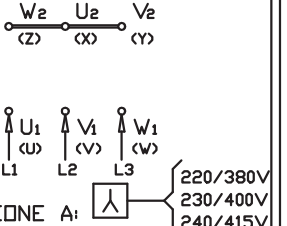
*

COLLEGAMENTO MOTORE
 MOTOR-CONNECTION MOTOR-ANSCHLUSS
 CONNEXION DU MOTEUR CONNEXION DEL MOTOR
 LIGAÇÃO DO MOTOR ZAPOJENI MOTORU

AVVIAMENTO DIRETTO □ SOFT STARTER
 START: DIRECT ON-LINE DIREKTE ANLAUF
 DEMARRAGE DIRECT ARRANQUE DIRECTO
 ARRANQUE DIRECTO



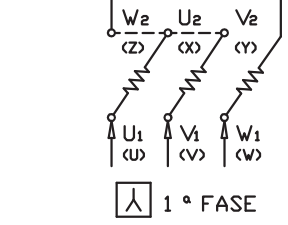
380/660V
400/690V
415/720V



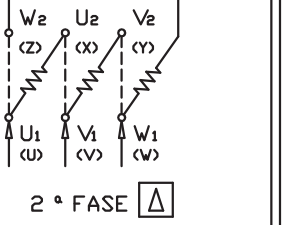
220/380V
230/400V
240/415V

ALIMENTAZIONE A1 STROM-ZUFUEHRUNG
 WIRING ALIMENTATION A1 ALIMENTACION A1
 ALIMENTAÇÃO A1 NAPÁJENÍ

AVVIAMENTO λ/Δ /
 START: STAR/DELTA STERNDREIECK ANLAUF
 DEMARRAGE λ/Δ / ARRANQUE λ/Δ /
 ARRANQUE λ/Δ / ZAPOJENI



1st PHASE 1^{er} PHASE
1^a PHASE 1^a FAZE

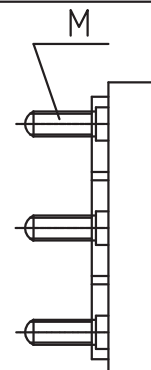


2nd PHASE 2nd PHASE
2nd PHASE 2^a FAZE

1^a FASE 2^a FASE

J0496/UN

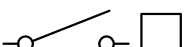
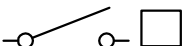
MOTOR POWER		PUMP	M
CV	Kw	L/1'	
2-20	1.5-15	15-150	M6
13-50	9.5-37	180-650	M8
60-100	45-75	440-650	M10

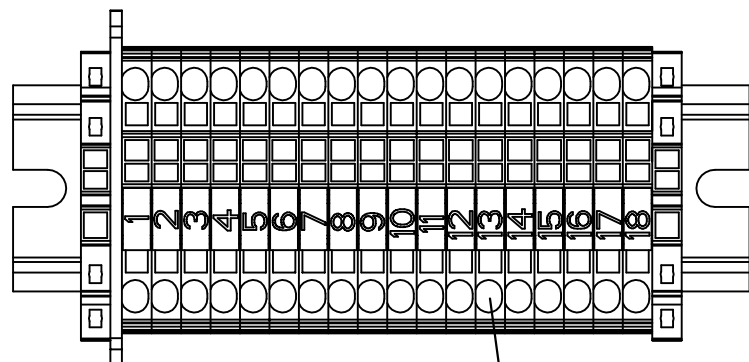


- E.A
E.B
E. λ/Δ - VALVES (STAR/DELTA ON REQUEST)
- C.E.
C.E.M.
EM.
E.A-E.B-E. - COMMON VALVE
 - COMMON EMERGENCY VALVE
 - EMERGENCY
- E.A-E.B-E. λ/Δ - NORMAL USE 48V. RECTIFIED CURRENT-BLACK WIRE
 E.B - AUTOMATIC USE IN EMERGENCY 12 V.
 DIRECT CURRENT-WHITE WIRE

* NOTE: CONNECT DURING WINTER / COLD MONTHS (220V. - 50W.)
 (**) FOR DOWNWARD HIGH SPEED JUMP WITH EM.-E.B

UT		ELECTRICAL WIRING IN THE POWER UNIT (TE.SEP)	DATE 03/09
			DWG N. 9310/1

1		MOTOR THERMOSTAT
2		(MAX - 2.5 V)
3	C.E.+ C.E.M.	COMMON COILS 48/80 Vdc - 12 Vdc
4		
5	E.A	UP/DOWN WARD HIGHT SPEED VALVE
6	E.B	DOWN WARD VALVE
7	EM,-E.B	DOWN WARD EMERGENCY COIL
8	E. Δ / Δ	STAR/DELTA COIL
9		OIL THERMOSTAT AT 70°C
10		
11		230V/400V PREHEATING OIL DISTRIBUTOR
12		
13	X.M.	
14	min.	
15	X.M.	
16	max.	
17	X.M.	
18	max.	



Sez. Max = 2,5mm²

E.A - SOLENOID VALVES
E.B - SOLENOID VALVES

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

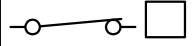
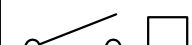
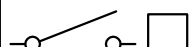
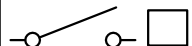
E.A-E.B-E. - NORMAL USE 48Vdc
BLACK WIRE

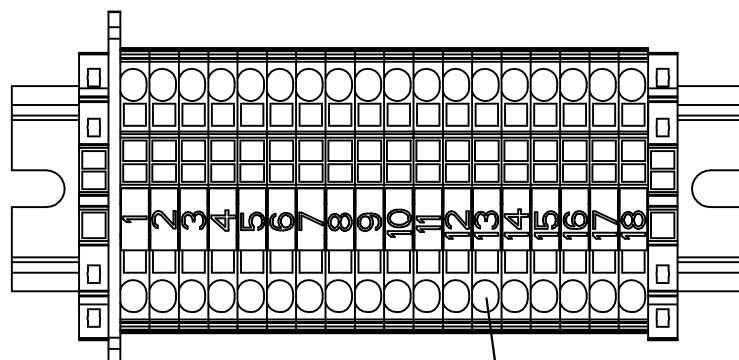
E.A.-E.B - AUTOMATIC USE IN EMERGENCY
12 Vdc WHITE WIRE

* N.B.: CONNECT IN PARALLEL THE OIL HEATING RESISTOR (WITH THERMOSTAT) AND THE VALVE HEATING RESISTOR DURING COLD SEASON (230V BLACK WIRE; 400V BLUE WIRE)

** OPTIONAL

UT		ELECTRICAL WIRING FOR POWER UNIT MARK2 (auxiliary circuits)	DATE 07/18
			DWG N. 9312/2

1		MOTOR THERMOSTAT (MAX - 2.5 V)
2		
3	C.E.+ C.E.M.	COMMON COILS 48/80 Vdc - 12 Vdc
4	C.E.	COMMON COILS 230 Vac
5	E.A	UP/DOWN WARD HIGHT SPEED VALVE
6	E.B	DOWN WARD VALVE
7	EM.-E.B	DOWN WARD EMERGENCY COIL
8	E. Δ/Δ	STAR/DELTA COIL
9		OIL THERMOSTAT AT 70°C
10		
11		230V/400V PREHEATING OIL DISTRIBUTOR
12		
13	X.M.	
14	min.	
15	X.M.	
16	max.	
17	X.M.	
18	max.	



Sez. Max = 2,5mm²

E.A - SOLENOID VALVES
E.B - SOLENOID VALVES

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

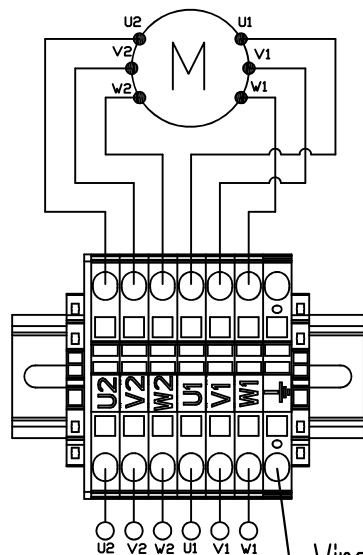
E.A-E.B-E. - NORMAL USE 48Vdc
BLACK WIRE

E.A.-E.B - AUTOMATIC USE IN EMERGENCY
12 Vdc WHITE WIRE

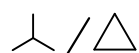
* N.B.: CONNECT IN PARALLEL THE OIL HEATING RESISTOR (WITH THERMOSTAT) AND THE VALVE HEATING RESISTOR DURING COLD SEASON (230V BLACK WIRE; 400V BLUE WIRE)

** OPTIONAL

UT		ELECTRICAL WIRING FOR POWER UNIT MARK2 (auxiliary circuits common separated)	DATE 07/18
			DWG N. 9312/3



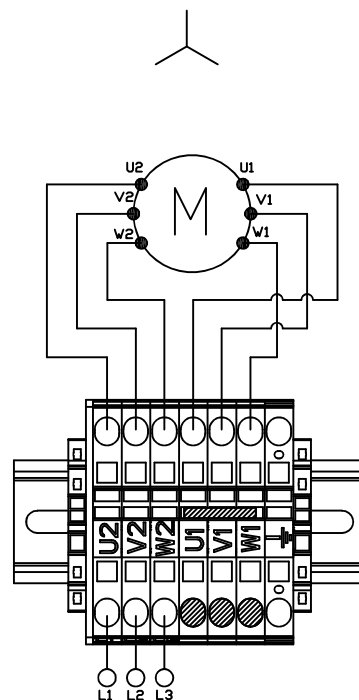
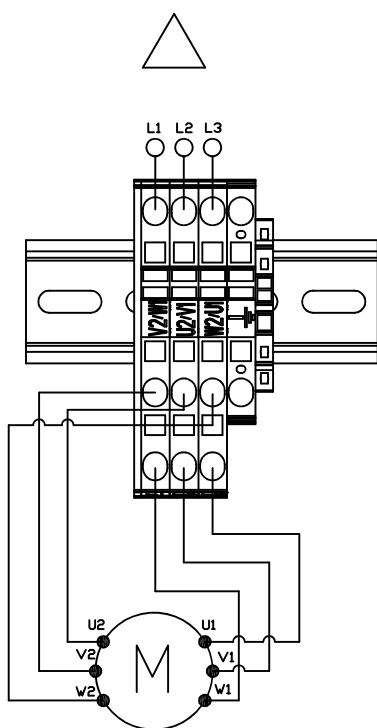
STARTING



Wire cross-section Max = 6mm²

THREE PHASE WIRING - DIRECT STARTING OR SOFT STARTER modular terminal board

LINE VOLTAGE	MOTOR VOLTAGE	CONNECTION
220..240	230/400	
380..415	230/400	
380..415	400/690 - 415/720	



UT

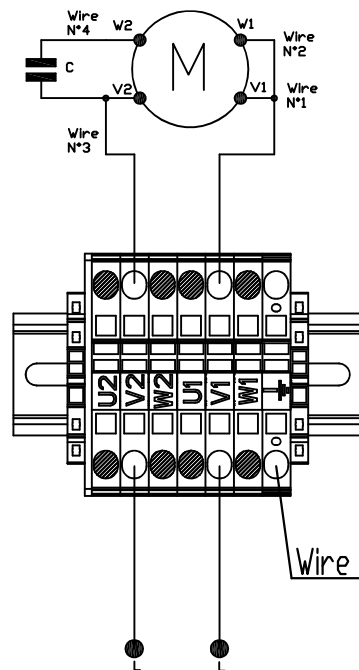
ELECTRICAL WIRING
FOR POWER UNIT MARK2
(main power 3-phase motor 8-16 CV)

DATE

03/21

DWG N.

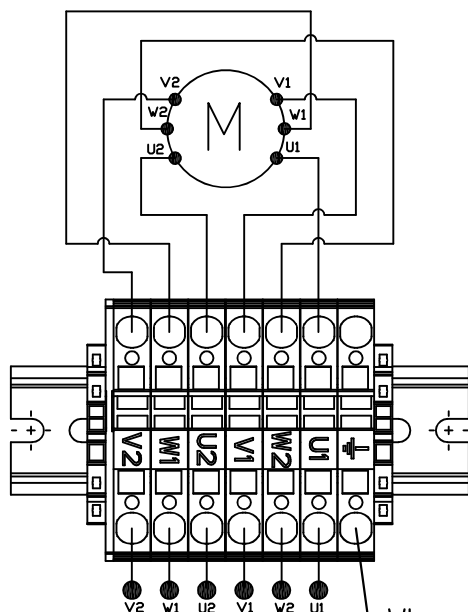
9312/4



WIRING modular terminal board

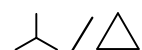
Wire cross-section Max = 6mm²

UT		ELECTRICAL WIRING FOR POWER UNIT MARK2 (main power single phase motor)	DATE
			03/21
			DWG N. 9312/5



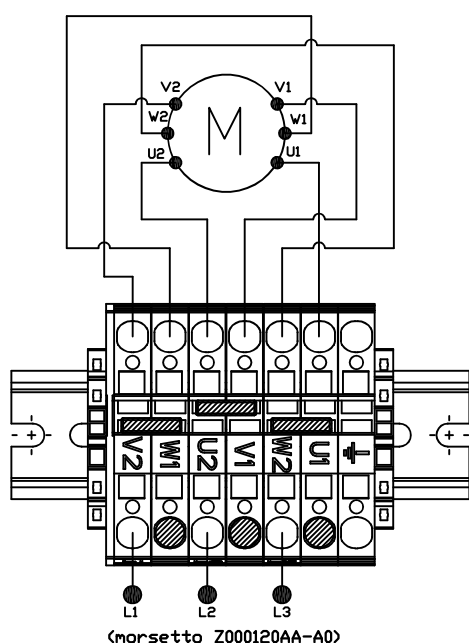
Wire cross-section Max = 10mm²

STARTING

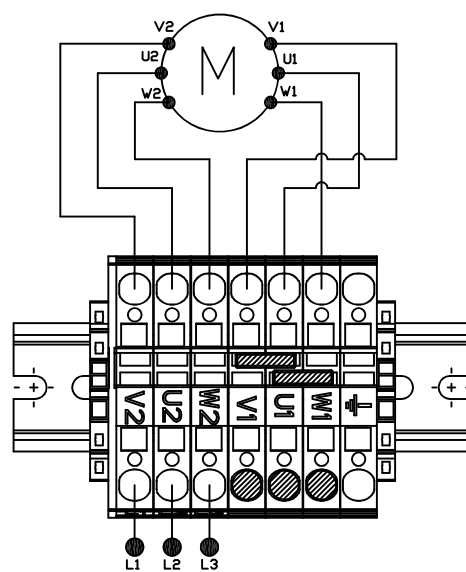


THREE PHASE WIRING - DIRECT STARTING OR SOFT STARTER modular terminal board

LINE VOLTAGE	MOTOR VOLTAGE	CONNECTION
220..240	230/400	
380..415	230/400	
380..415	400/690 - 415/720	



(morsetto Z000120AA-A0)



(morsetto Z000119AA-A0)

UT	

ELECTRICAL WIRING
FOR POWER UNIT MARK2
(main power 3-phase motor 20-25 CV)

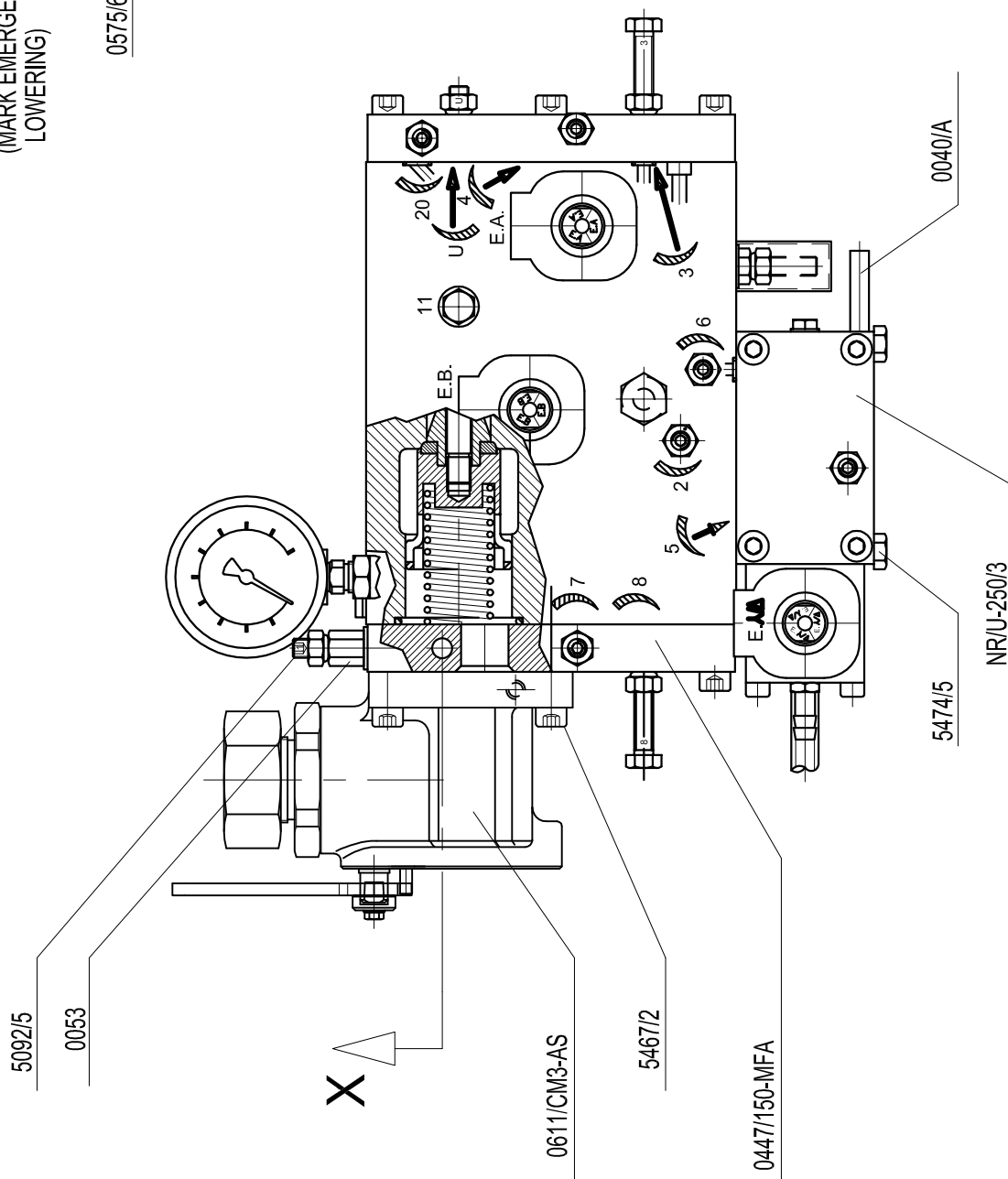
DATE	03/21
DWG N.	9312/4-10

0953

(MARK EMERGENCY
LOWERING)

0575/6-AR

VIEW X



NOTE:

- FOR DETAILS OLEODYNAMIC DISTRIBUTOR
ARE NOT IDENTIFICATIONS, REF. DWG 9500/1

UT

OLEODYNAMIC DISTRIBUTOR - 320 -

(15 / 250 L/MIN.) AVAILABLE FROM 03/2007

DATE

07/07

DWG Nr.

9500/1-320

UT

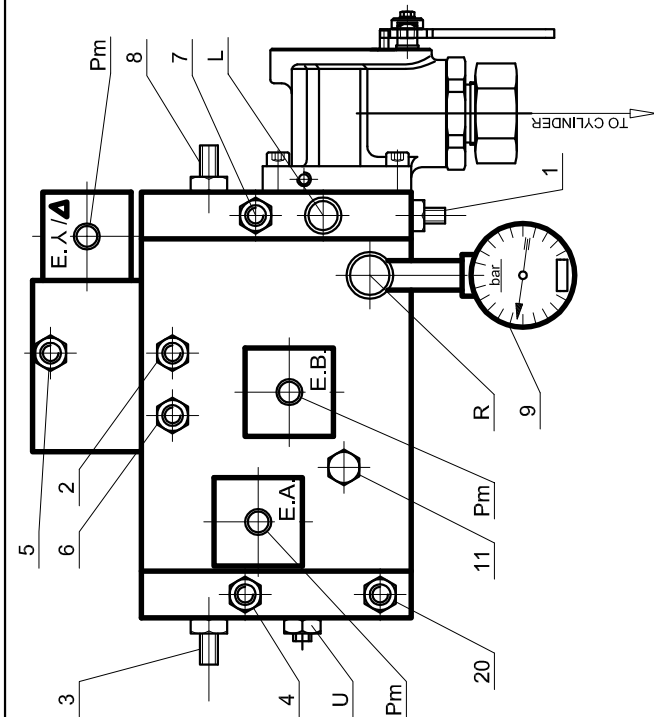
ADJUSTMENT AND OPERATION SCHEME
OF DISTRIBUTOR
(DISTRIBUTOR 15/250 L/MIN)

DATE

07/18

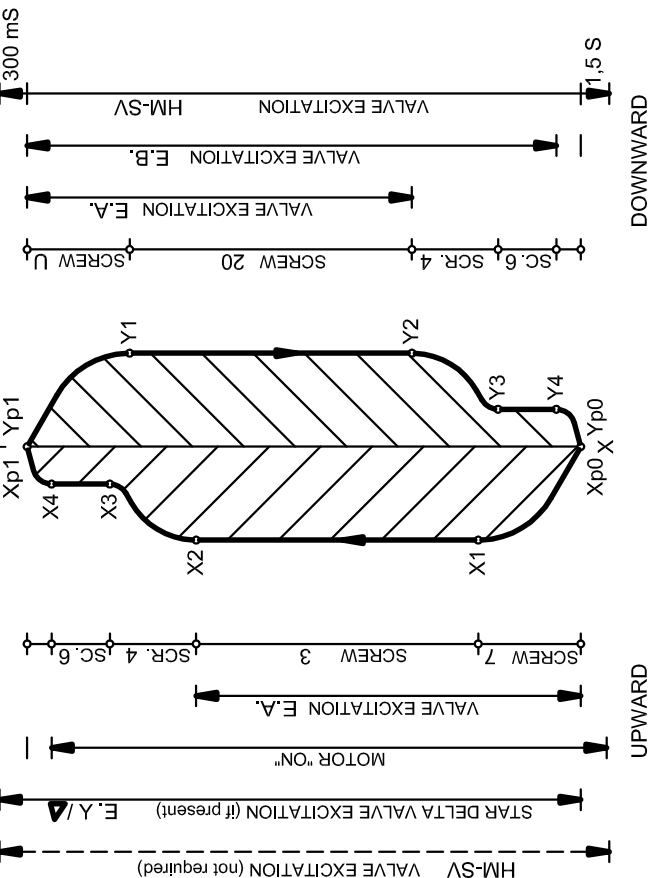
DWG Nr.

9237



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
E.A. / Δ STAR DELTA START 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
U DOWNWARD DEPARTURE DEVICE - TIGHTEN SCREW TO REDUCE SPEED (1)



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

OPERATION

- ELECTRIC MOTOR ON
MOTOR SUPPLY AND E.A. VALVE EXCITATION AND Δ/Δ
ACCELERATION IN UPWARD DIRECTION - ADJUST USING SCREW 7
CONSTANT HIGH SPEED IN UPWARD DIRECTION - ADJUST USING SCREW 3
1ST DECELERATION PHASE FROM HIGH TO LOW SPEED - E.A. DE-ENERGIZED ADJUST USING SCREW 4
CONSTANT LOW SPEED IN UPWARD DIRECTION - ADJUST USING SCREW 6
2ND DECELERATION PHASE TO FLOOR LEVEL (MOTOR OFF)
DELAY FOR STAR DELTA VALVE DE-ENERGIZING
- E.A./E.B. VALVES EXCITATION - ACCELERATION IN DOWNWARD DIRECTION ADJUST USING SCREW U
CONSTANT HIGH SPEED IN DOWNWARD DIRECTION - ADJUST USING SCREW 20
1ST DECELERATION PHASE - E.A. VALVE DE-ENERGIZED ADJUST USING SCREW 4
CONSTANT LOW SPEED IN DOWNWARD DIRECTION - ADJUST USING SCREW 6
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

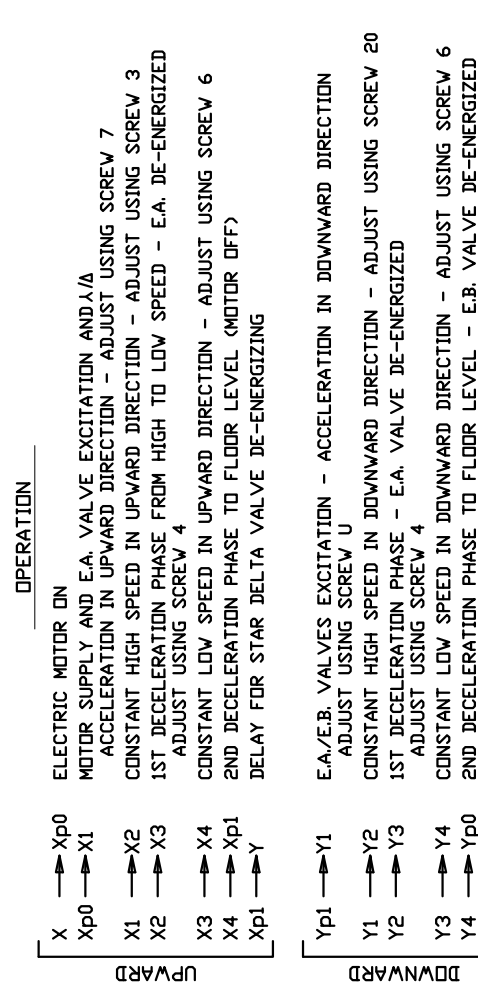
UT	
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ADJUSTMENT AND OPERATION SCHEME OF DISTRIBUTOR (DISTRIBUTOR 300/650 L/MIN)

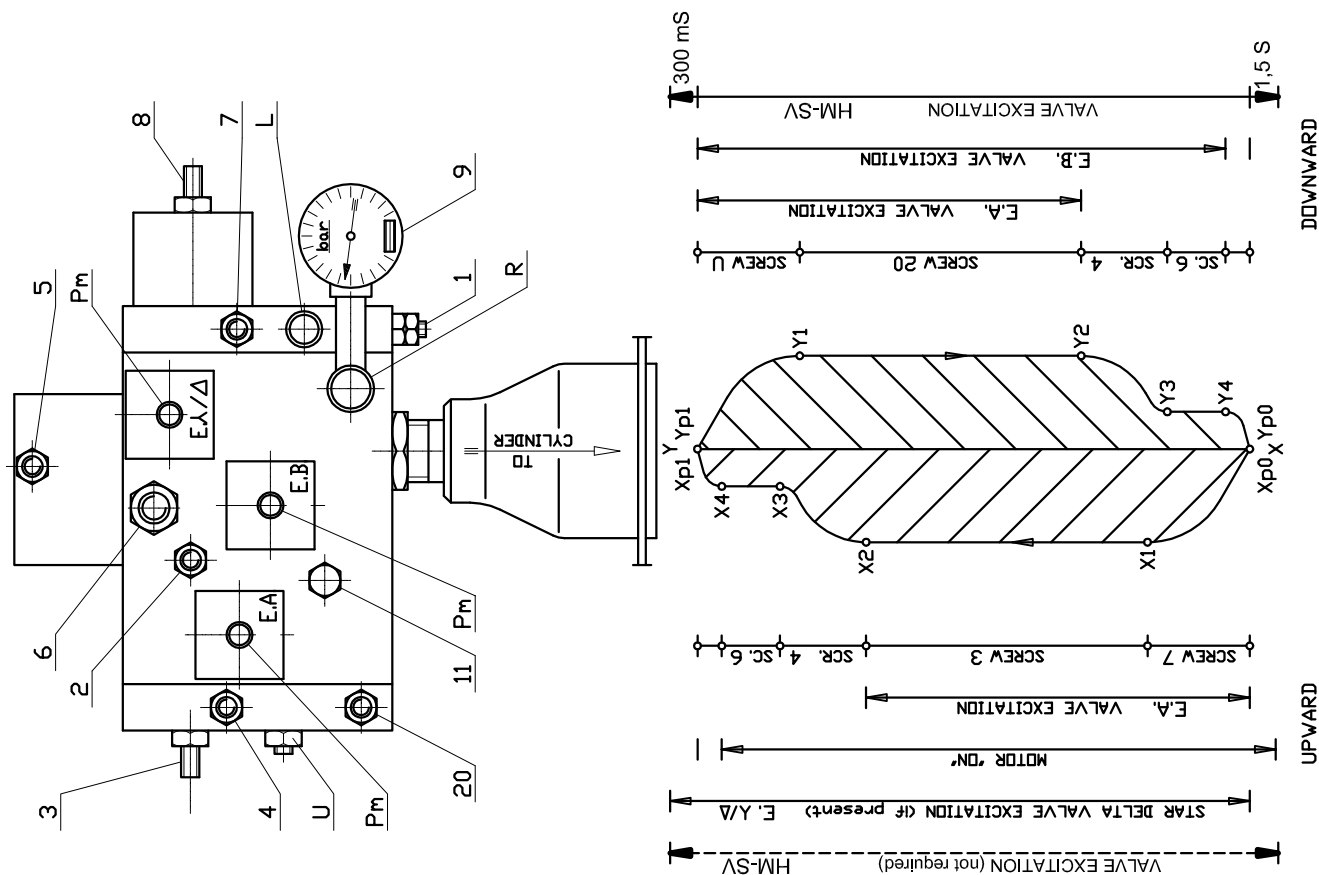
DATE	07/18
DWG N.	9236/5

- 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
E.A./Δ STAR DELTA START 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
U DOWNWARD DEPARTURE DEVICE - TIGHTEN SCREW TO REDUCE SPEED (1)

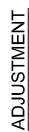
NOTE (1): DO NOT TIGHTEN COMPLETELY, SINCE DEPARTURE MOVEMENT MAY BE INTERRUPTED



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



DATE	11/15
DWG Nr.	9227/SS+21



- NOTE (1): DO NOT TIGHTEN COMPLETELY, SINCE DEPARTURE MOVEMENT MAY BE INTERRUPTED.
 (2): DO NOT TIGHTEN COMPLETELY, MAY BE NO STOP TO FLOOR LEVEL, BUT OTHER SIDE PASSED.
 (3): TIGHTEN SCREW No 7 (WITH COLD OIL) UNTIL THE SYSTEM STOPS, JUST BY ENGAGING THE ENGINE GEARS

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

ADJUSTMENT AND OPERATION SCHEME OF DISTRIBUTOR FOR SOFT STOP+21 INSTALLATION

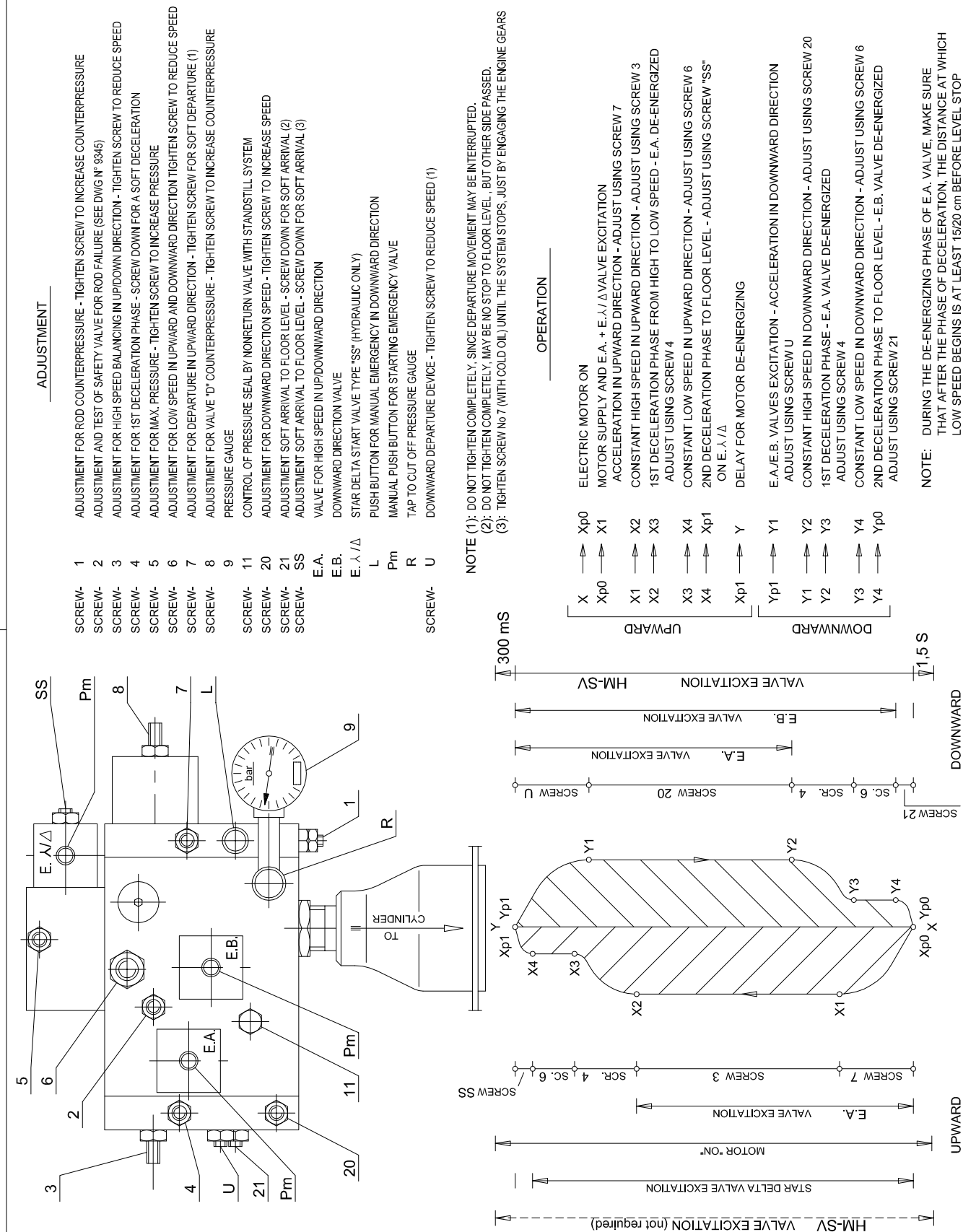
(DISTRIBUTOR 300/650 L/MIN)

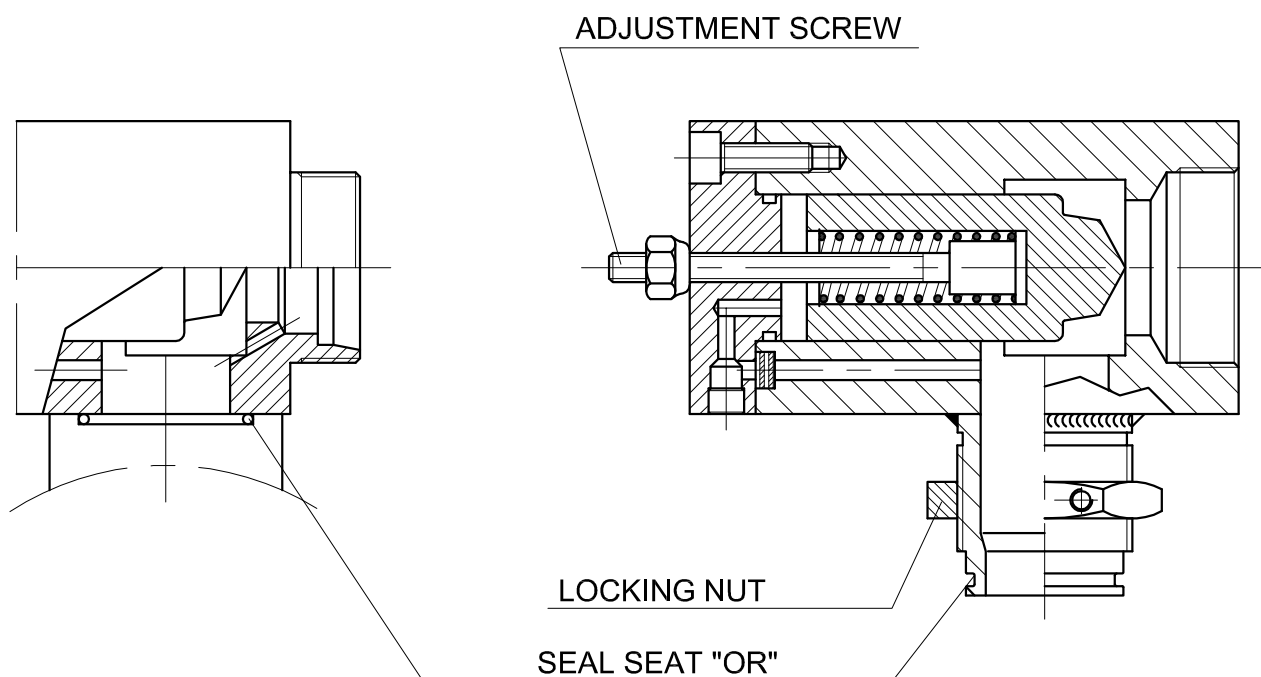
DATE

11/15

DWG N.

9236/5-SS+21





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

TYPE: 2"

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.
ONLY FOR SINGLE SPEED VALVE: SCREW N. 3 AND N. 8 IN SAFETY UNSCREW.
(VALVES NOT MORIS FOLLOW THE INSTRUCTIONS OF THE MANUFACTURER).
- C - SET A DOWNWARD RUNNING SO THAT THE CAR WILL GO DOWN FASTER THAN THE NOMINAL SPEED,
OR FOLLOW THE INSTRUCTIONS OF THE MANUFACTURER.
- 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 - ONLY FOR MORIS VALVES, WHEN THE CHECK HAS BEEN TERMINATED WITH THE CAR
IN STOP POSITION, RESET THE ADJUSTMENT SCREW N.2 (UNSCREW OF 3.5 TURNS)
AND N. 8 (ONLY FOR SINGLE SPEED VALVE: SCREW N. 3 AND N. 8) TO THE ORIGINAL CONDITION.

NOTE:

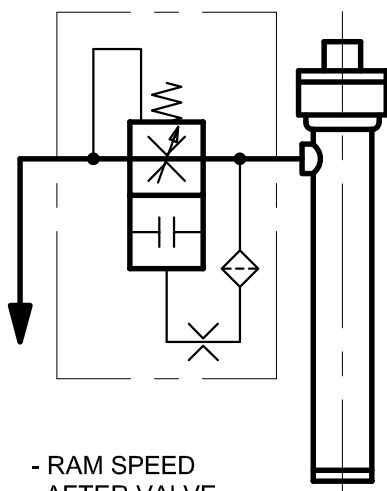
- 1) IF DURING THE CHECK THE VALVE DOES NOT OPERATE TAKE OFF THE CAP AND THE ADJUST
THE VALVE BY TURNING 1/4 OF A ROUND AT A TIME, REPEAT THE CHECK UNTIL IT FUNCTIONS.
- 2) THE VALVE CAN BE ORIENTATED IN ANY DIRECTION.
- 3) THE VALVE IS ALREADY CALIBRATED.
- 4) FOR SYSTEMS WITH TO OR MORE PISTONS, EACH 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 	DATE 07/16
			DWG N. 9345

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

MANUAL ADJUSTMENT GRAPH:

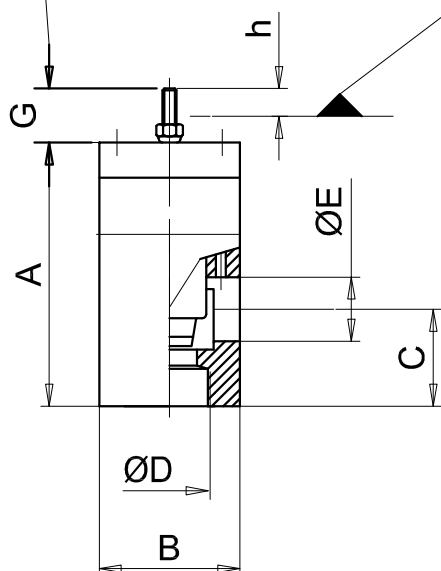
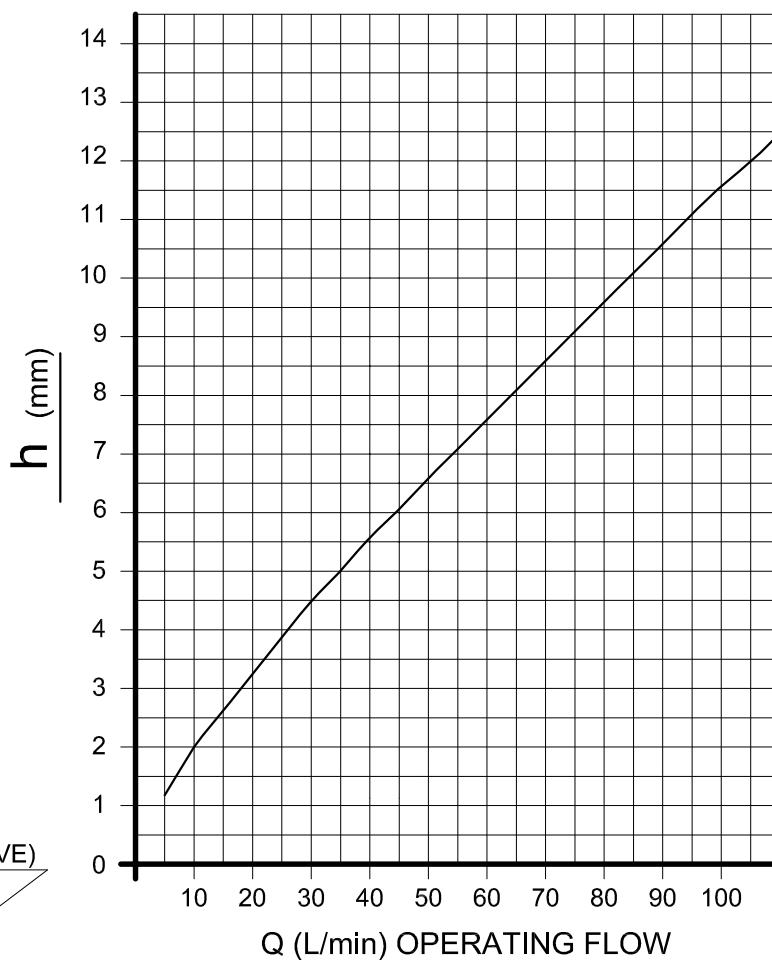
- 1) CLOSE THE SCREW COMPLETELY (h=0)
- 2) ACCORDING TO Q (L/min), UNSCREW OF h (mm)



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

- VALUE BROUGHT FORWARD
ON THE TESTING CERTIFICATE

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



Q _n	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	Ø 50	
C	40	
D	3/4"	
E	18	

Table adjustment h in function of the nominal pump flow

Nominal pump flow Q _n [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:

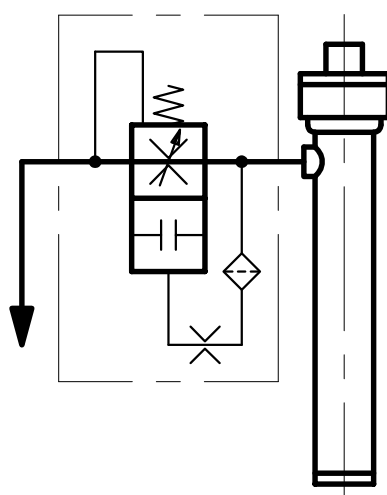
DATA TAKEN WITH:

- STATIC PRESSURE = 30 BAR
- OIL TEMPERATURE = 30°C

UT	

PROCEDURE FOR ADJUSTMENT OF
LOCK VALVE 3/4" HP (0825/P-VP22-HP)

DATE	10/19
DWG N°	9346/2

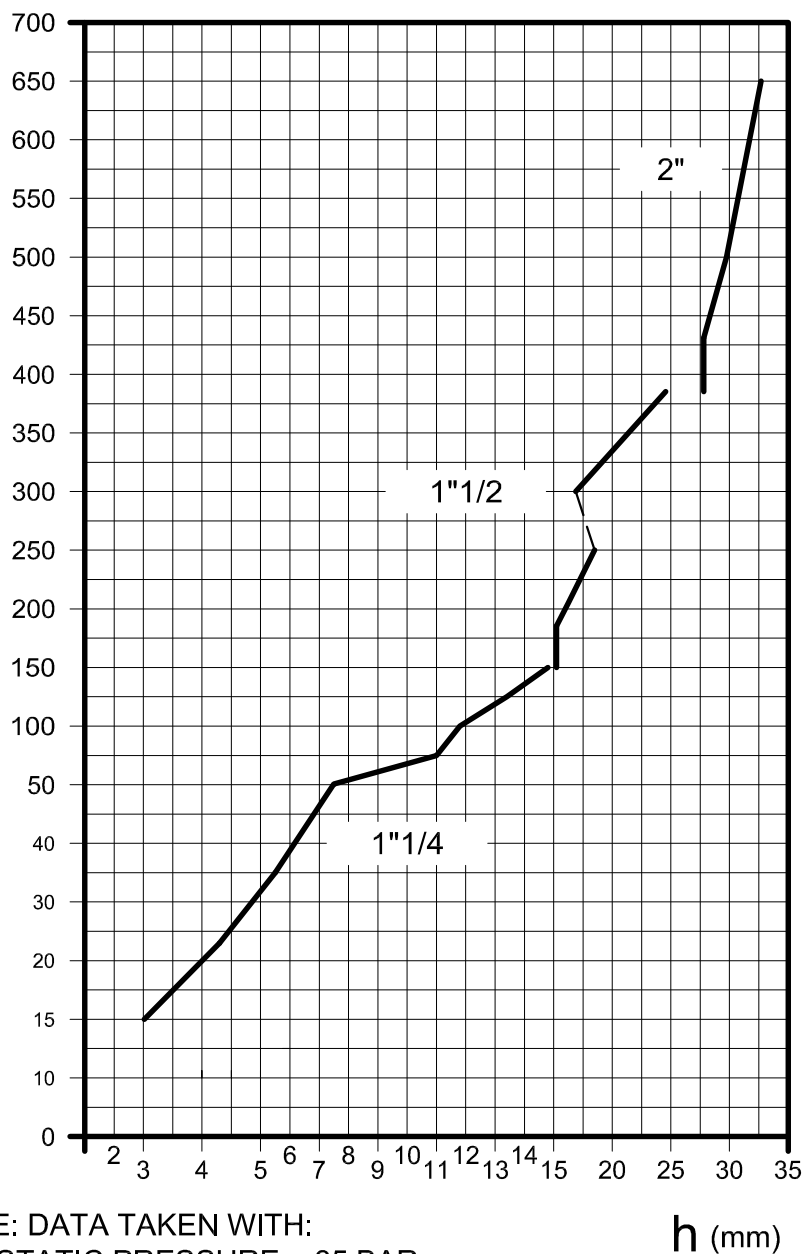


- RAM SPEED AFTER
VALVE INTERVENTION

$V_d = 0$ (m/s)

Q_n (l/1') NOMINAL FLOW RATE DOWNWARD

VALUE BROUGHT FORWARD
ON THE TESTING CERTIFICATE



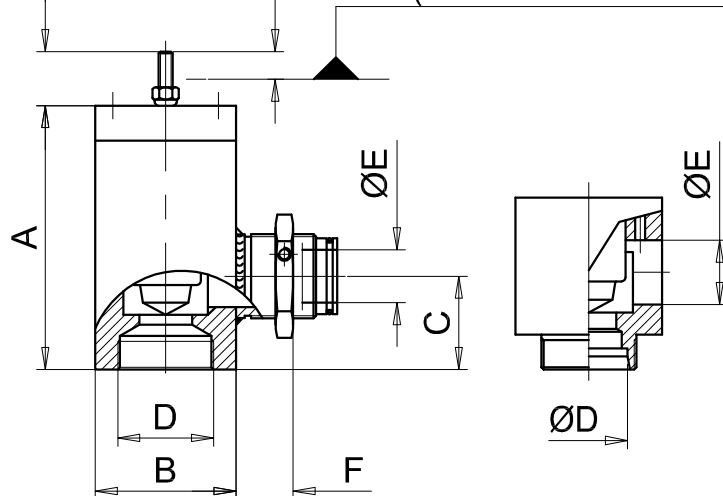
NOTE: DATA TAKEN WITH:

- STATIC PRESSURE = 35 BAR

- OIL TEMPERATURE = 35°C

h (mm)

$h = 0$ (TOTALLY CLOSED VALVE)



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		Ø 70	Ø 70	Ø 75
C		56	56	63
D	28 35	42	2"/F	
E	25	30	40	
F	/	/	24	

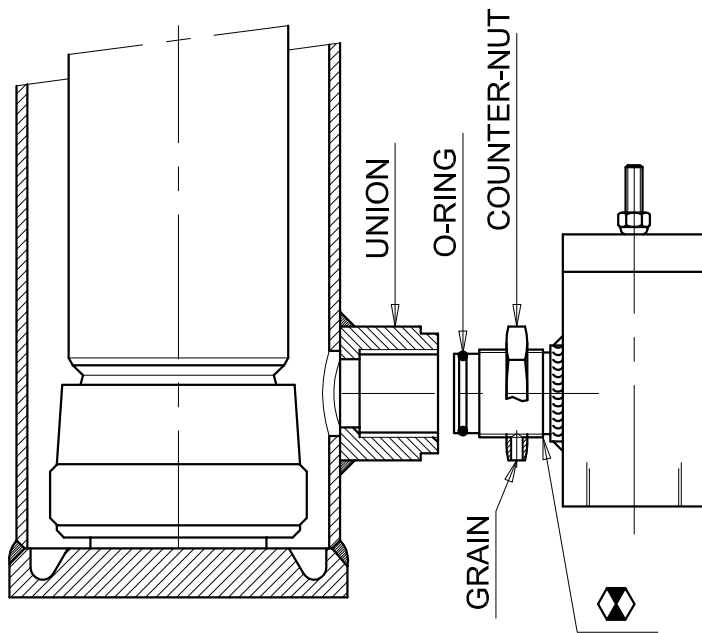
UT	

DIMENSIONING AND REGULATION OF
THE ADJUSTABLE STOP VALVE 1"1/4; 1"1/2; 2"



DATE	10/19
DWG N.	9346

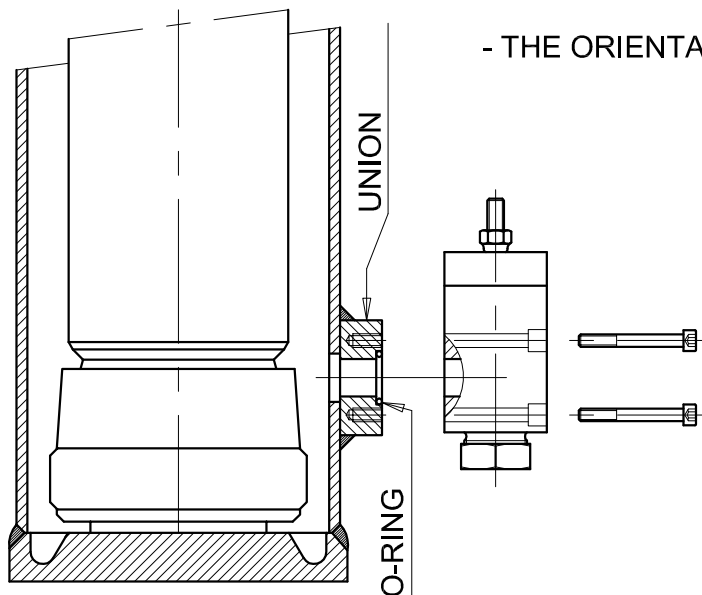
TYPE: 2"



- 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

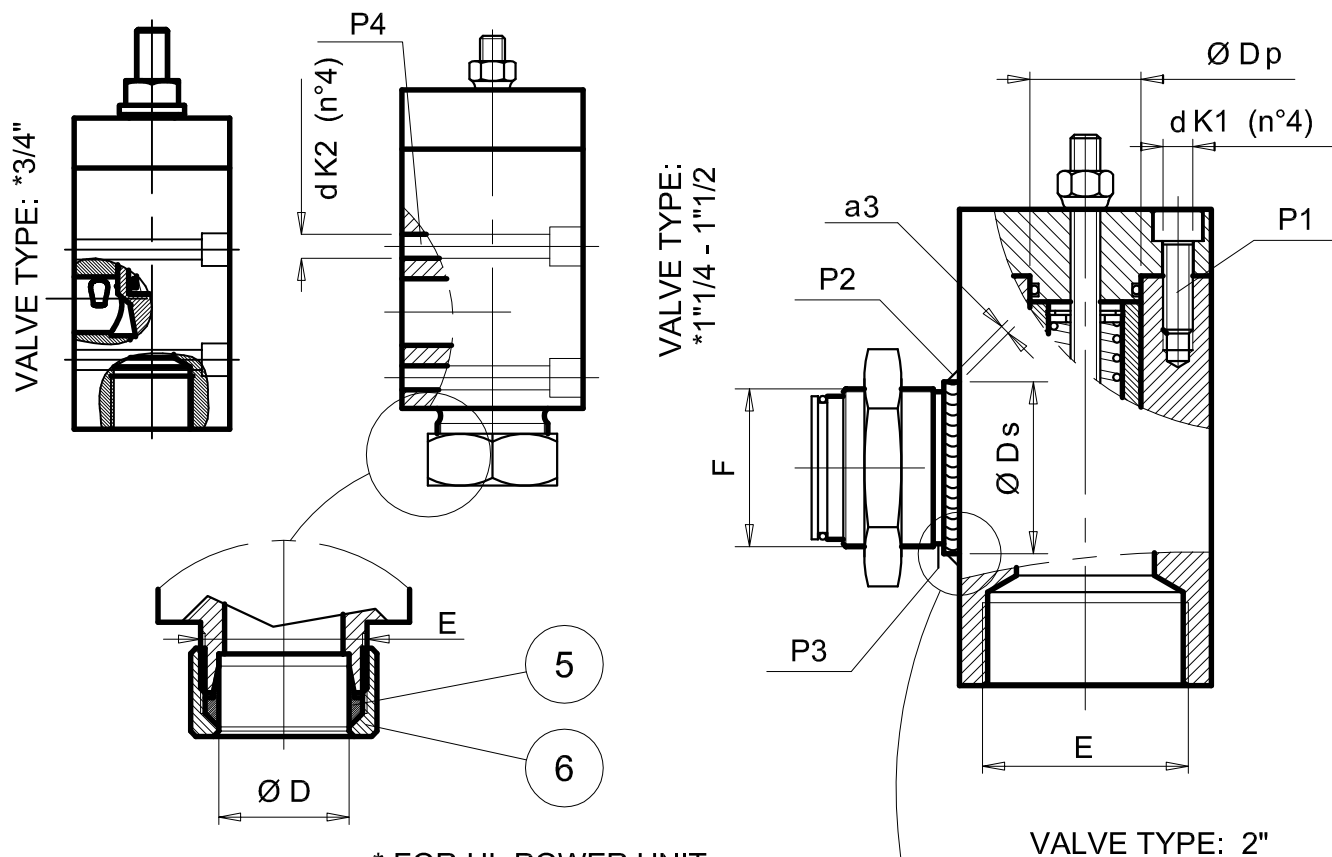
* FOR HL POWER UNIT TYPE: *1"1/4 - 1"1/2

- 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
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		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		Male thread		Male thread	Nut thread
		M30x2	M36x2	M36x2	M45x2	M52x2	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