Rev.02
02/04/2026

MORIS
lifting up, make it safe

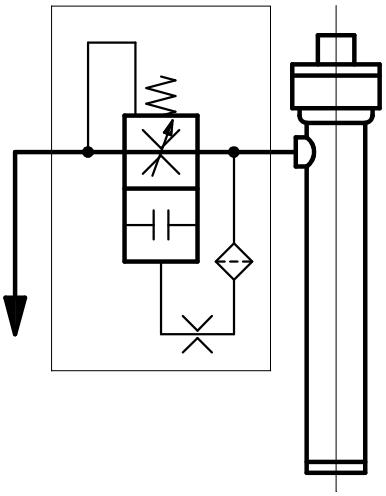
Chapter 9

RUPTURE VALVES

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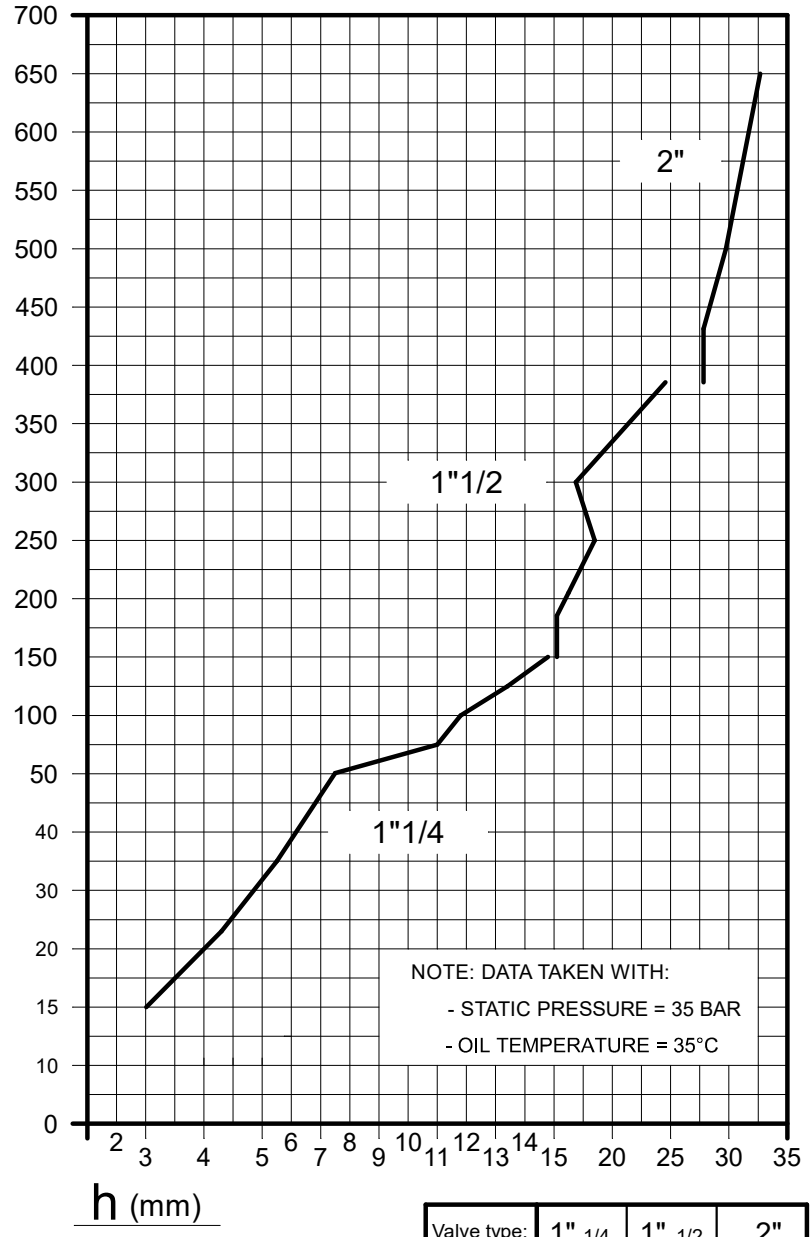
DRAWING	DESCRIPTION
9346	Dimensioning and regulation of the adjustable stop valve
9346/2	Dimensioning and regulation of the adjustable stop valve 3/4” HP
9347	Dimensioning and regulation of the flow relief valve
9348	Procedure for mounting the adjustable docking valve
9348/1	Procedure for mounting the adjustable docking valve 3/4” HP
9305	Dimensions of cylinder with installed rupture valves
0682/P	Rams connection with rupture valves (i.e. 2 Rams Balancing)
9345	Functional checking of the adjustable stop valve
9345/MED	Functional checking of the adjustable stop valve (MED)
9340	Functional checking of the adjustable flow relief valve
9341	Dimension rupture valve with IGV adapter



- RAM SPEED AFTER VALVE INTERVENTION

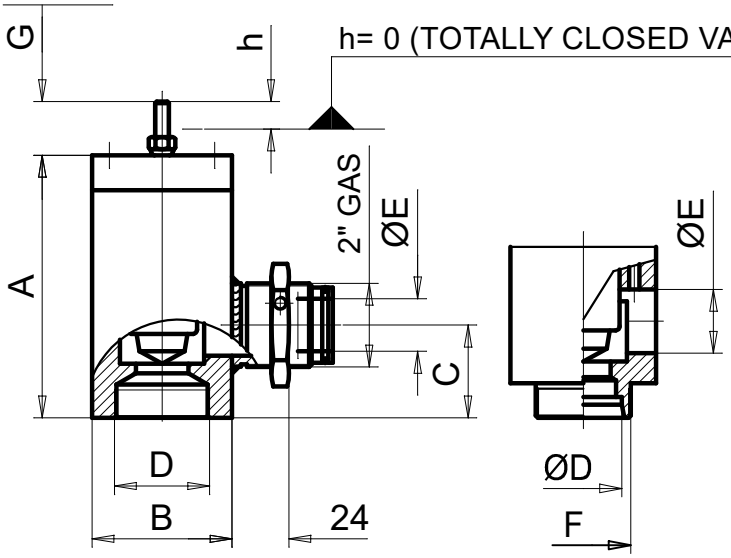
Vd = 0 (m/s)

Qn (l/1') NOMINAL FLOW RATE DOWNWARD



G VALUE BROUGHT FORWARD ON THE TESTING CERTIFICATE OF THE GEARCASE

h= 0 (TOTALLY CLOSED VALVE)



TYPE: 2"

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

Valve type:		1" 1/4	1" 1/2	2"
Code/Model		0393/P 1"1/4	0425/P 1"1/2	0689/P 2"
Qn	MIN	15	151	381
	MAX	150	380	650
P	MIN	15		16
	MAX	45		
T	MIN	15 °C		
	MAX	60 °C		
U	MIN	23 Cts		
	MAX	112 Cts		
A		132	153	186
B		⌀70	⌀70	⌀75
C		56	56	63
D		28 | 35	42	2"/F
E		25	30	40
F		M36x2 M45x2	M52x2	-

UT

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

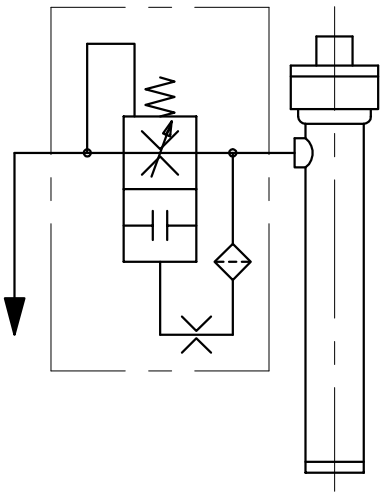
CE

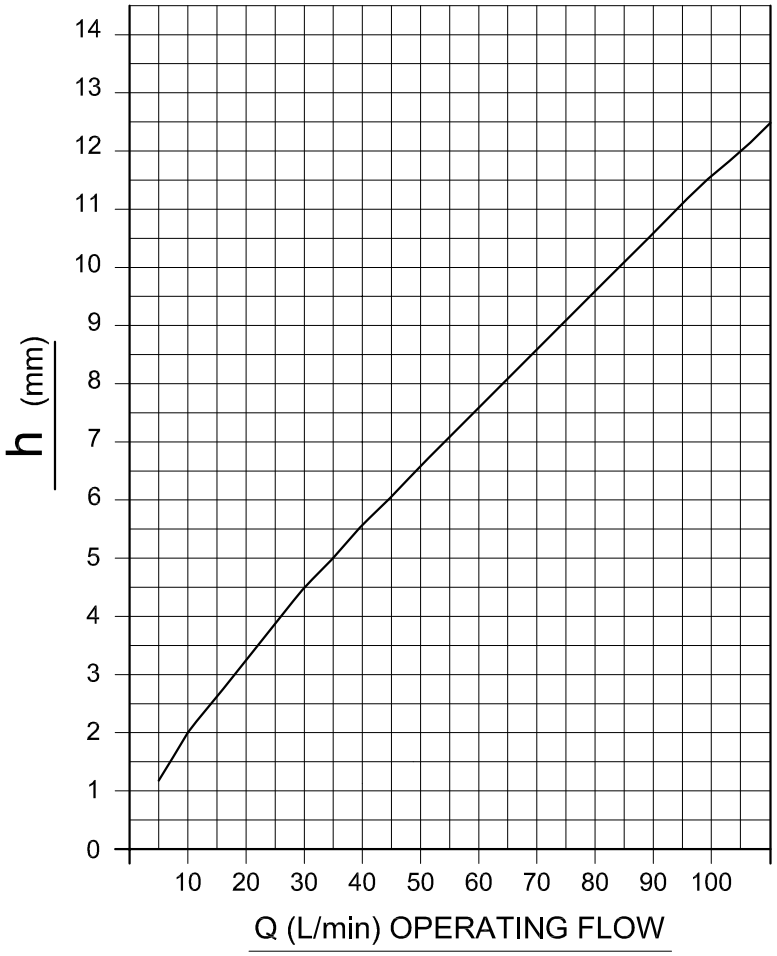
DATE 12/25

DWG N. 9346

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

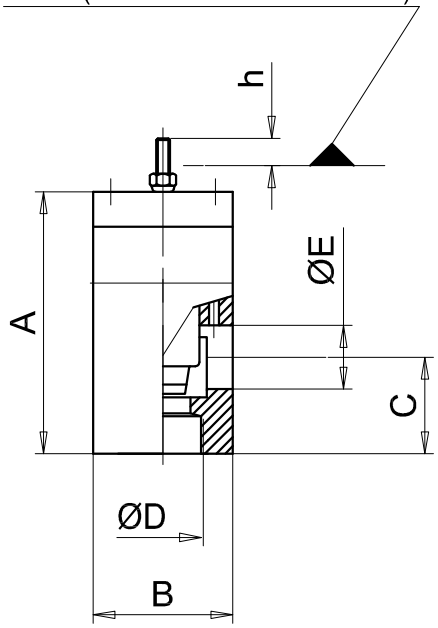
MANUAL ADJUSTMENT GRAPH:
1) CLOSE THE SCREW COMPLETELY (h=0)
2) ACCORDING TO Q (L/min), UNSCREW OF h (mm)





- 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

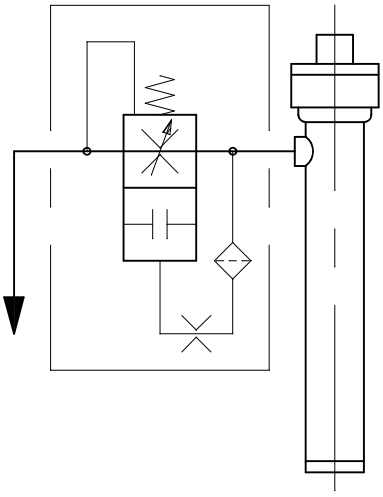
Table adjustment h in function of the nominal pump flow

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

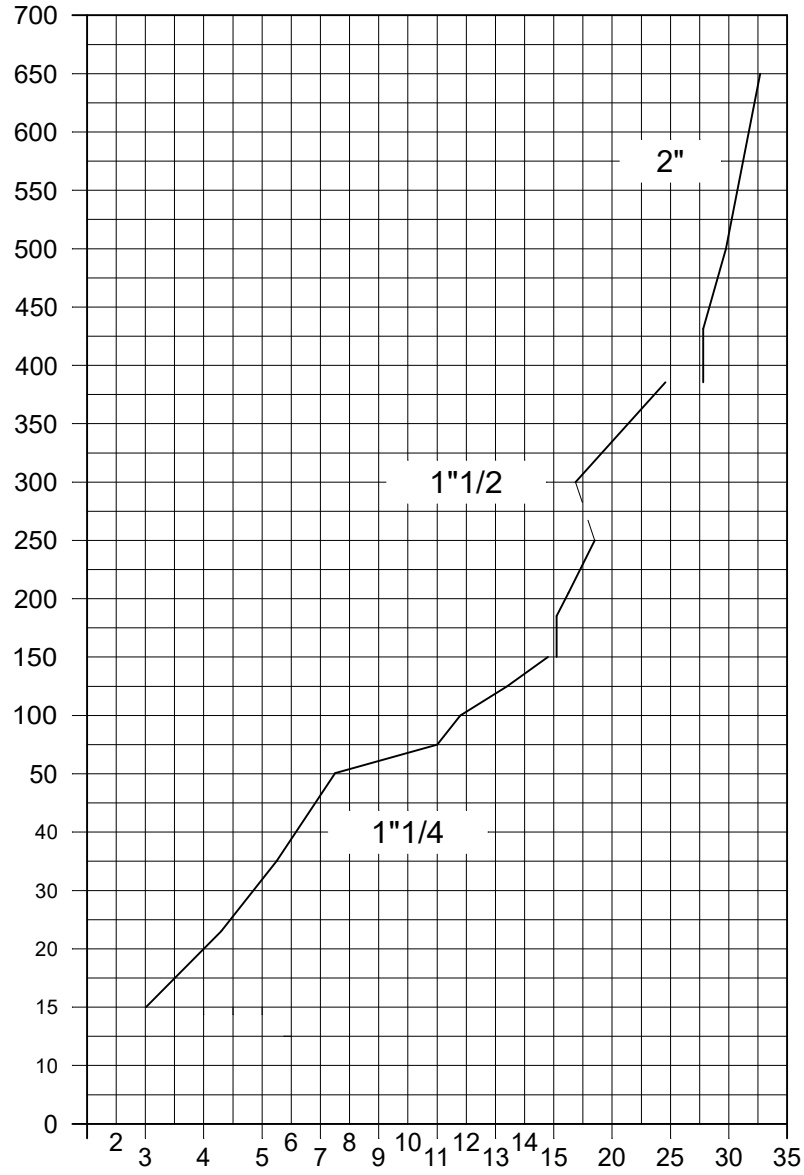
NOTE:

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



Qn (l/1') NOMINAL FLOW RATE DOWNWARD



- RAM SPEED AFTER VALVE INTERVENTION

$$Vd = \frac{Sf \times \sqrt{p} \times 12.41}{d^2} \quad (m/s)$$

Sf= HOLE SECTION (mm^2)

p = MAX STATIC PRESSURE (BAR)

d = RAM OUTSIDE DIAMETER (mm)

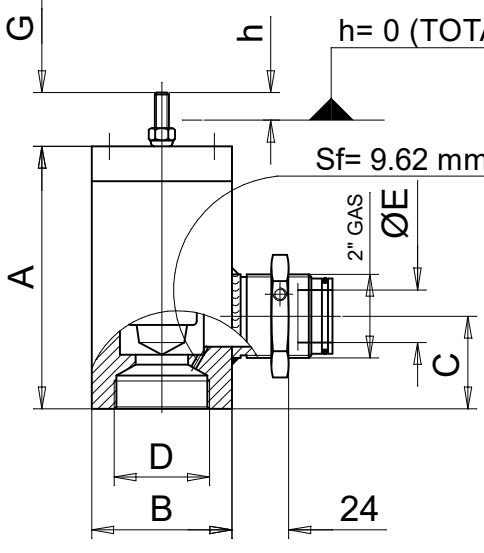
NOT CERTIFIED CE

VALUE BROUGHT FORWARD ON THE TESTING CERTIFICATE OF THE GEARCASE

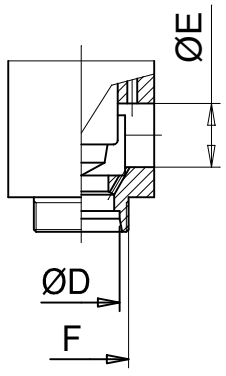
NOTE: DATA TAKEN WITH:
- STATIC PRESSURE = 35 BAR
- OIL TEMPERATURE = 35°C

h (mm)

		1" 1/4	1" 1/2	2"
Qn	MIN	15	151	381
	MAX	150	380	650
P	MIN	15		
	MAX	45		
A		132	153	186
B		⌀70	⌀70	⌀75
C		56	56	63
D		28 / 35	42	2"/F
E		25	30	40
F		M36x2 M45x2	M52x2	-



TYPE: 2"

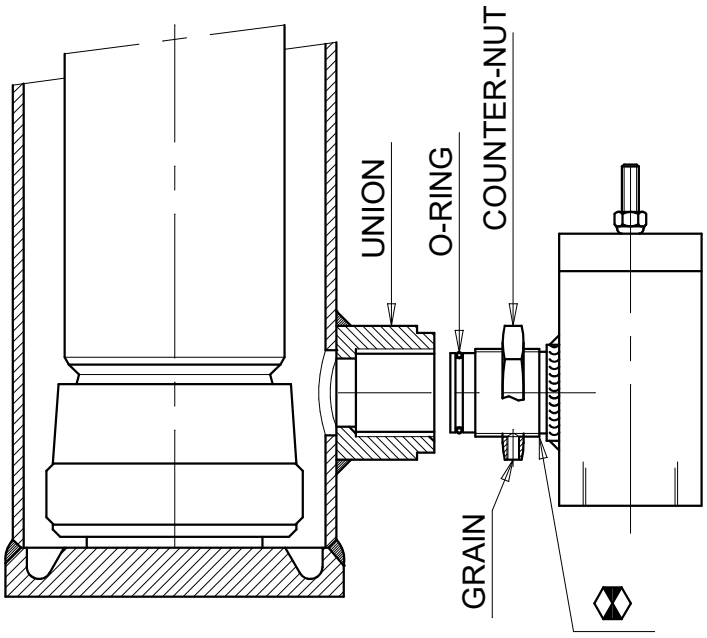


TYPE: 1"1/4 - 1"1/2

UT		DIMENSIONING AND REGULATION OF THE FLOW RELIEF VALVE	DATE 01/21
			DWG N. 9347

9347-IN

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)

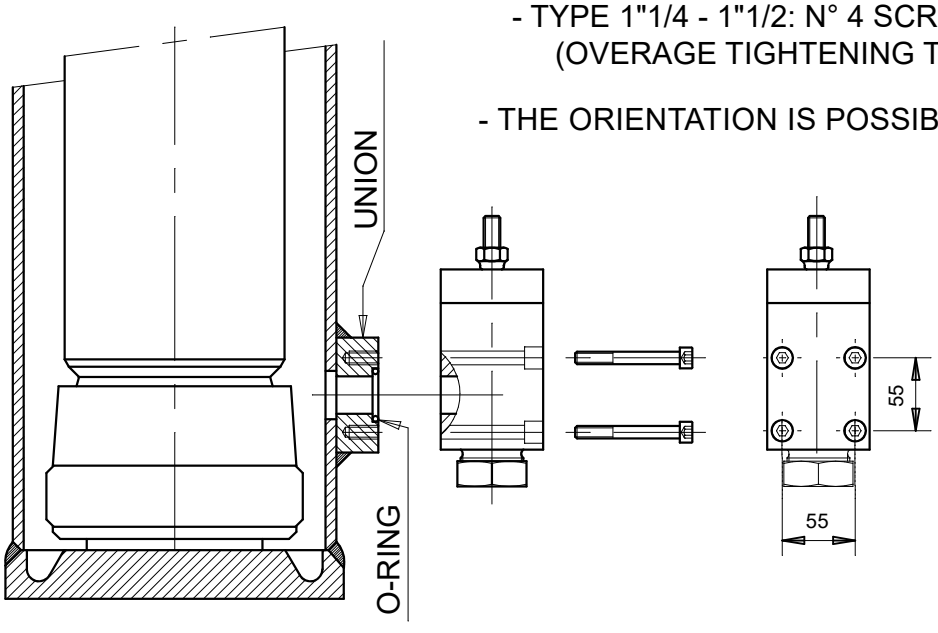
- SCREW THE COUNTER-NUT UP TO MECHANICAL LEDGE (SIDE OF THE UNION SOLDERED TO THE CYLINDER)

- 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°

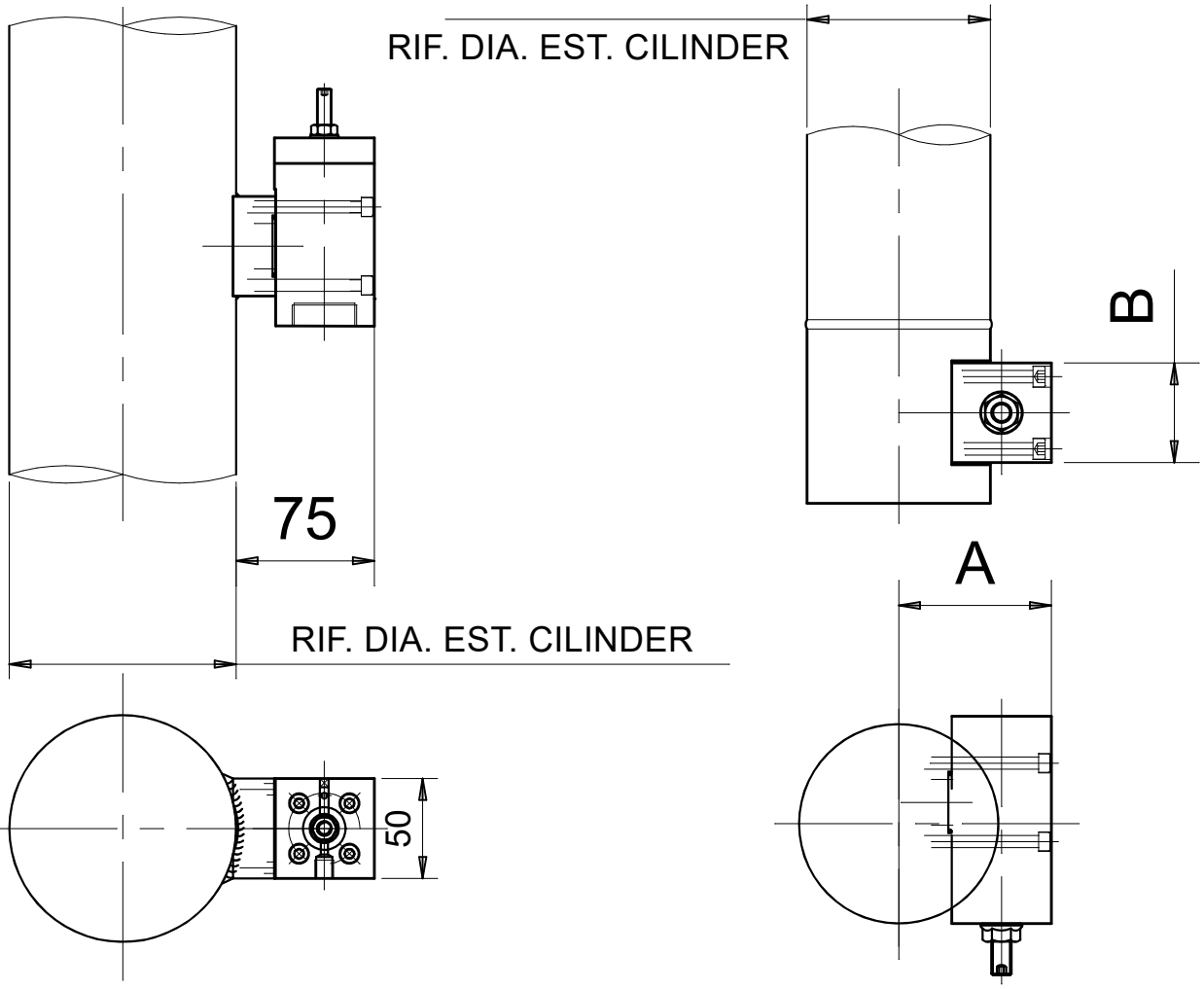


NOTE: REMEMBER TO VERIFY THAT THE SEAL O-RING GASKET IT IS ALWAYS INSERTED

UT			PROCEDURE FOR MOUNTING THE ADJUSTABLE LOCKING VALVE	DATE 01/21
				DWG N. 9348

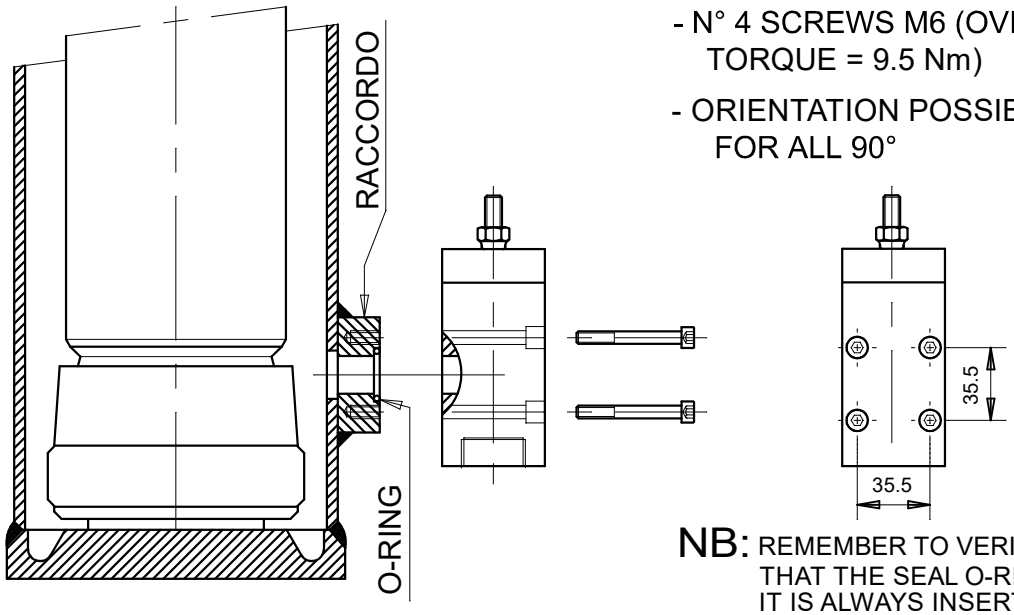
VP ON STANDARD CILINDER

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 01/21
				DWG N° 9348/1

9305-ING

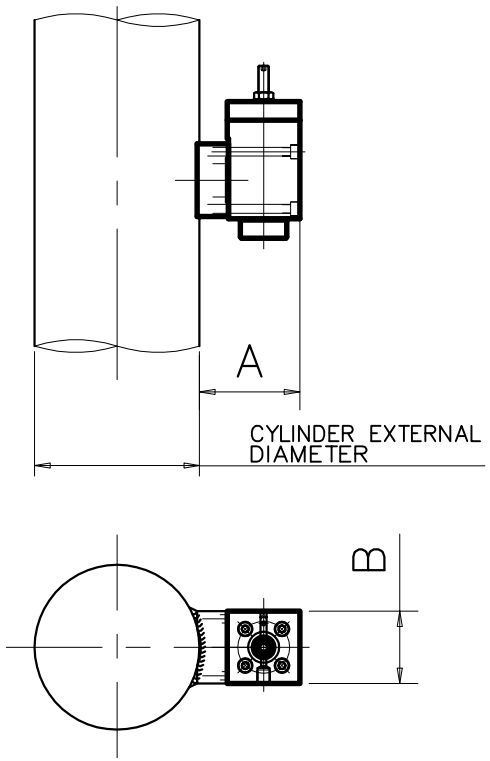
UT

DIMENSIONS OF CYLINDER WITH RUPTURE VALVES

	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

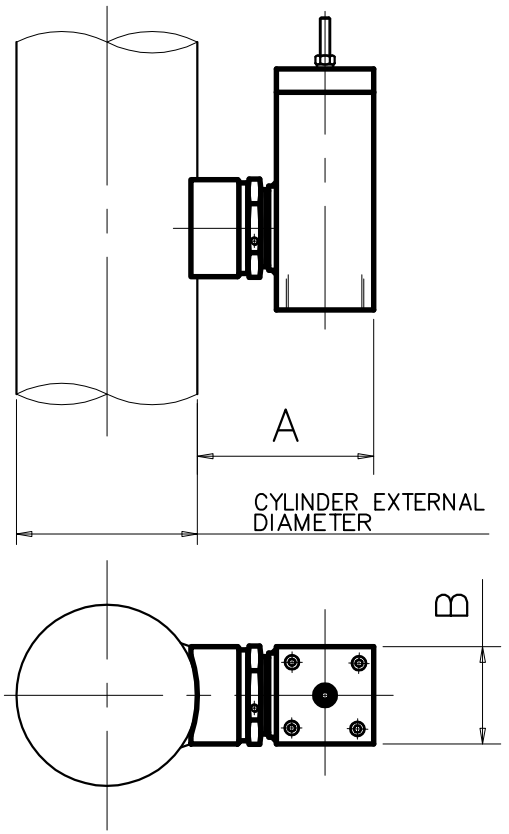
DIMENSIONS FOR RUPTURE VALVE: (1"1/4 - 1"1/2)

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



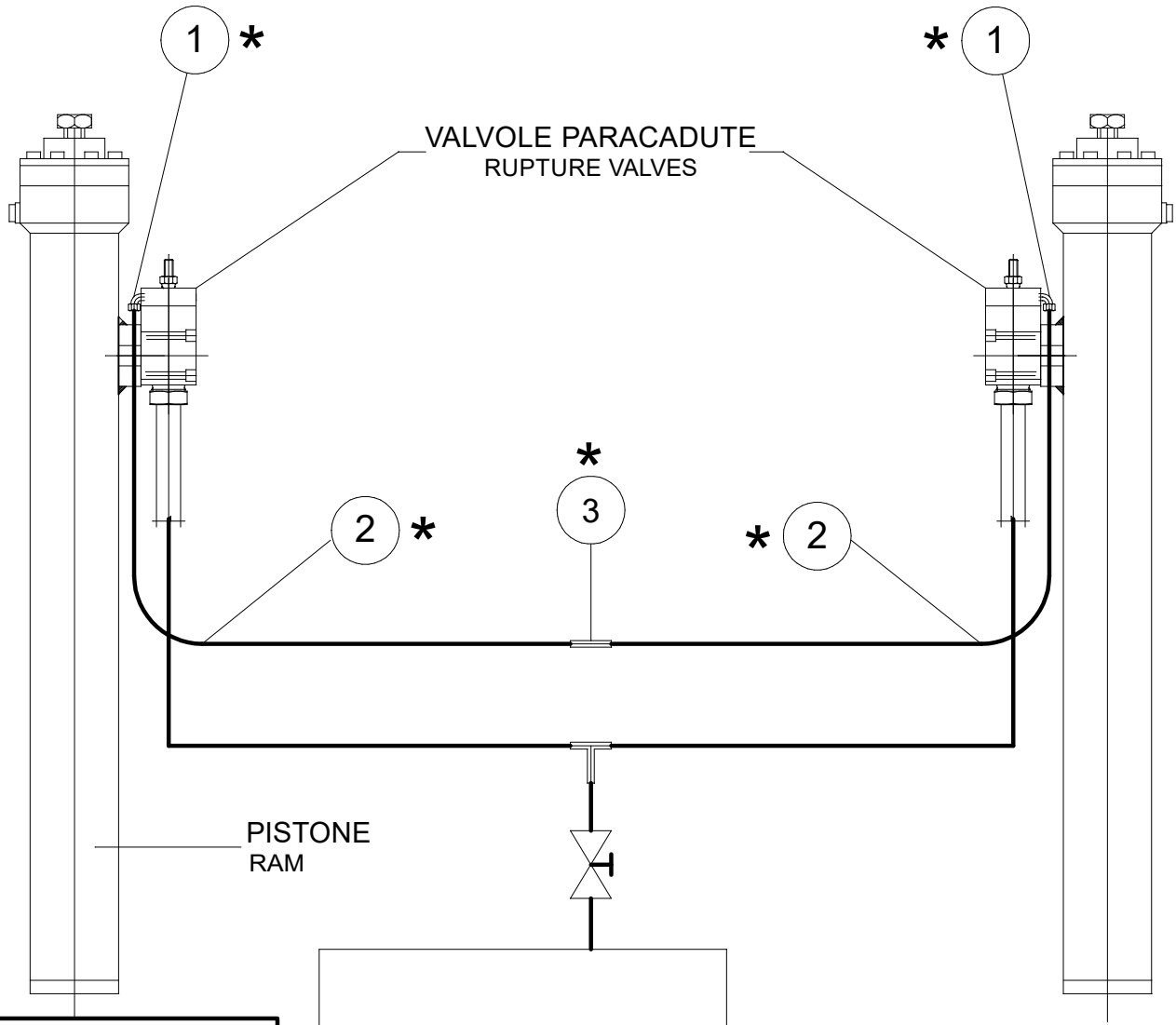
DIMENSIONS FOR RUPTURE VALVE: (2")

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

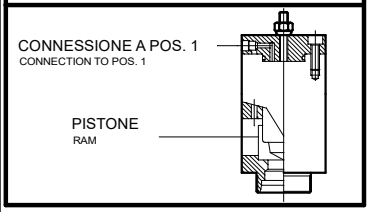


DATE 11/18

DWG Nr 9305



DETT. VALVOLA
VALVE DETAIL



TUBO
PIPE

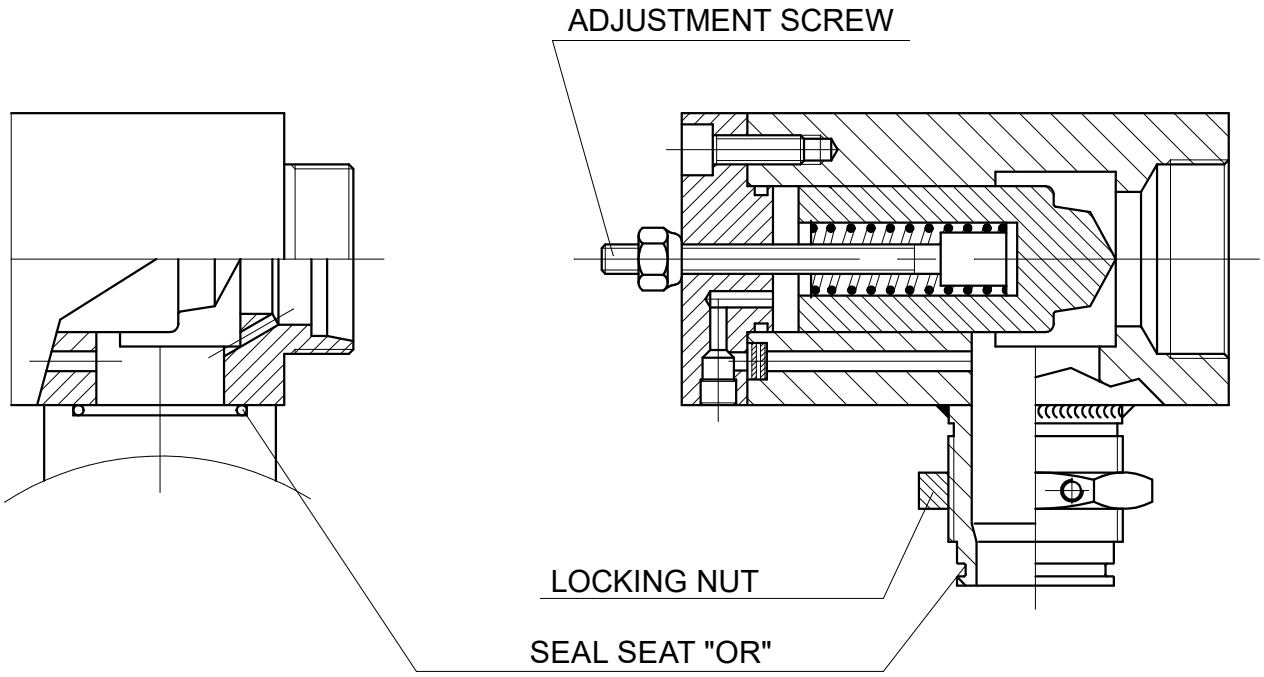
MINIFLEX (POS.2)
(5mt STANDARD)
RUBBER PIPE Ø 8 mm

* - A RICHIESTA
- ON REQUEST

TABELLA CONFIGURAZIONI - CONFIGURATION TABLE

POS.1		POS.2		POS.3	
N°pc.	CODICE- CODE	N°pc.	CODICE- CODE	N°pc.	CODICE- CODE
2	5313/1	1	5425	-	-
		2		1	5307/5
		3		2	

UT		SCHEMA PER COLLEG. PISTONI CON VALVOLE PARACADUTE RAMS CONN. WITH RUPTURE VALVES (I.E. 2 RAMS BALANCING)	DATA 08/24 N DIS. 0682/P



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 NSTRUCTIONS OF THE MANUFACTURER.

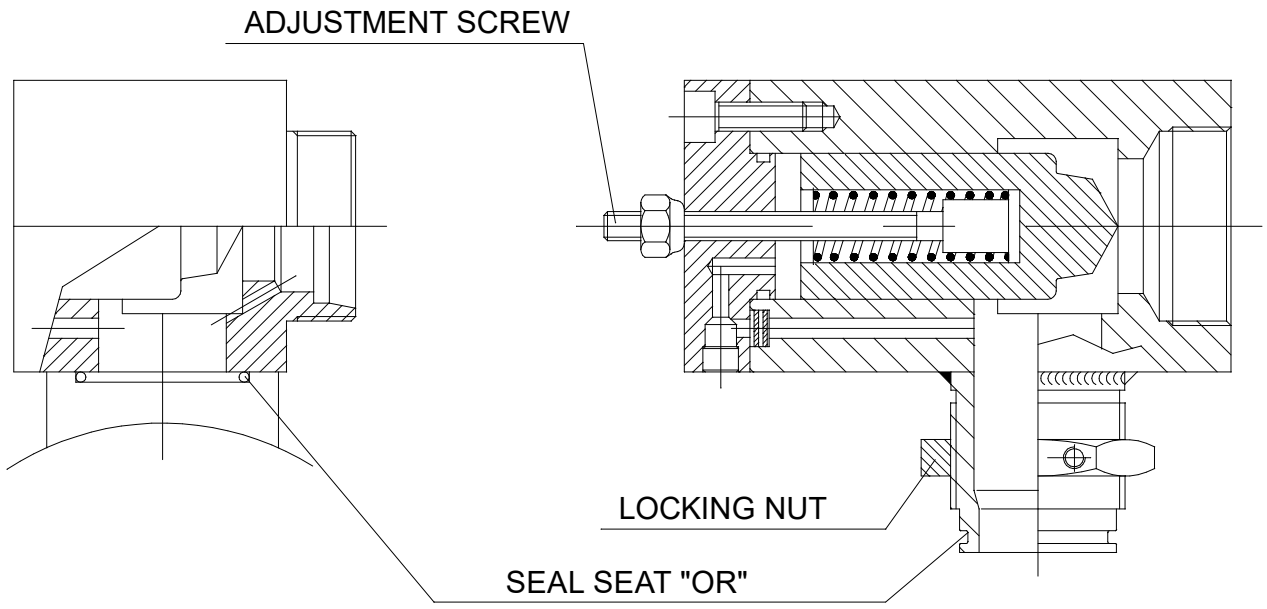
D - THE VALVE MUST BE ABLE TO STOP THE DESCENDING CAB AND TO KEEP IT STILL AT THE LATEST WHEN THE SPEED REACHES A VALUE EQUAL TO THE NOMINAL DOWN STROKE SPEED "Vd" INCREASED OF 0.3 m/s.

E - ONLY FOR MORIS VALVES, WHEN THE CHECK HAS BEEN TERMINATED WITH THE CAR IN STOP POSITION, RESET THE ADJUSTEMENT 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
	CE	DWG N. 9345



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

TIPO: 2"

OPERATING TEST:

A - SEND THE CAR TO THE TOPMOST FLOOR WITH MAX LOAD.

B - SWITCH-OFF THE POWER SUPPLY OF THE **MED.**

C - ON THE DISTRIBUTOR BLOCK, COMPLETELY CLOSE SCREW N. 2 + N. 2.1 AND UNSCREW FOR 7 TURN THE SCREW N. 2.2. ENSURING THAT THE OUTLET HOLE IS FACING DOWNWARDS (SEE MARK ON SCREW)

D - MANUALLY ACTIVATE E.B. + E.A., SO THAT THE CAR WILL GO DOWN FASTER THAN THE NOMINAL SPEED.

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

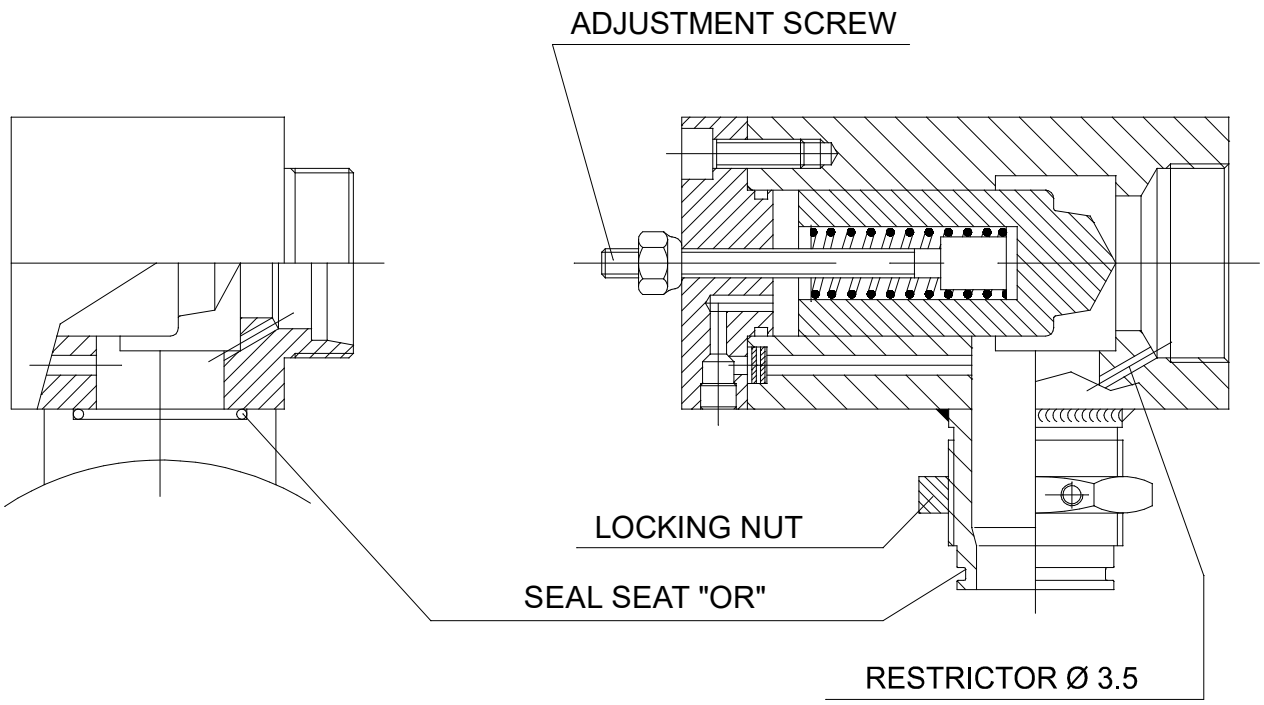
F - WHEN THE TEST HAS BEEN TERMINATED WITH THE CAR IN STOP POSITION, RESET THE ADJUSTEMENT SCREW N.2 (UNSCREW OF 3.5 TURNS) N. 2.1 (TOTAL UNSCREW) AND N. 2.2 TO SCREW FULL STOP

G - SWITCH-ON THE POWER SUPPLY OF THE **MED.**

NOTE:

1) IF,DURING THE TEST, THE VALVE DOES NOT OPERATE, 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 TEST OF THE ADJUSTABLE STOP VALVE (MED)	DATE 11/14
	CE	DWG N. 9345/MED



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.
(FOR VALVE 3/4" ONLY: SCREW N. 3 AND N. 8 IN SAFETY UNSCREW)

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

D - THE VALVE MUST PREVENT THE CAGE DOWN STROKE FROM REACHING A VALUE EQUAL TO THE NOMINAL DOWN SPEED "Vd", INCREASED BY 0.3 n/s.

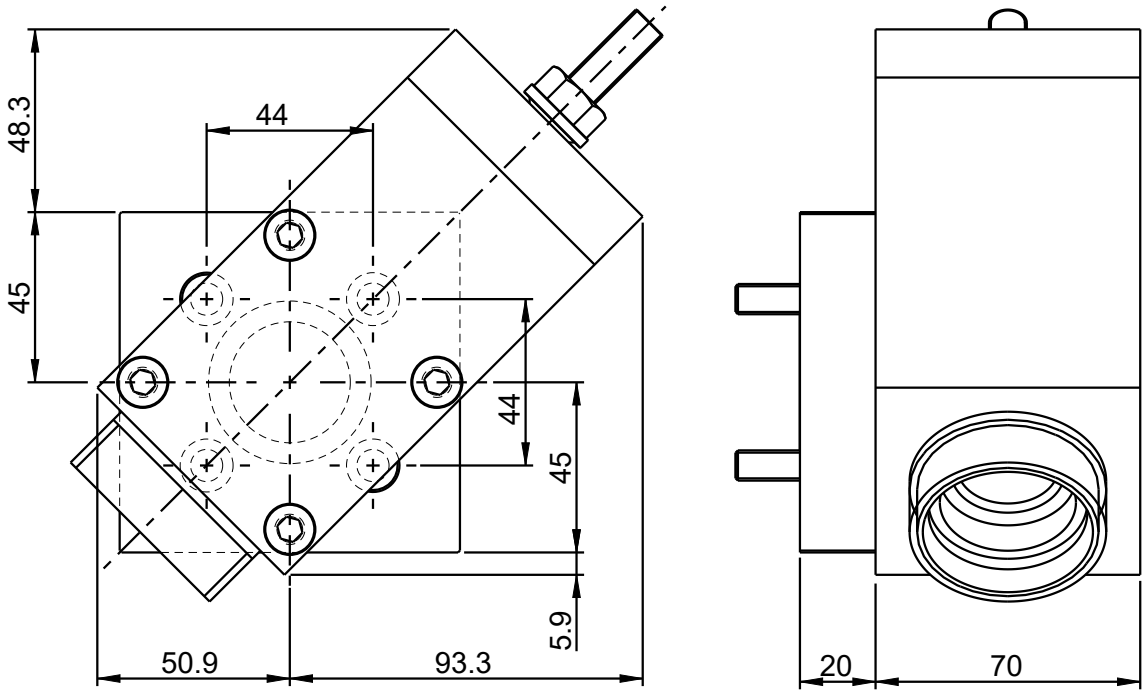
E - WHEN THE CHECK HAS BEEN TERMINATED WITH THE CAR IN STOP POSITION, RESET THE ADJUSTEMENT SCREW N.2 (UNSCREW OF 3.5 TURNS) AND N. 8 (FOR VALVE 3/4" ONLY: SCREW N. 3 AND N. 8) TO THE ORIGINAL CONDITION.

NOTE:

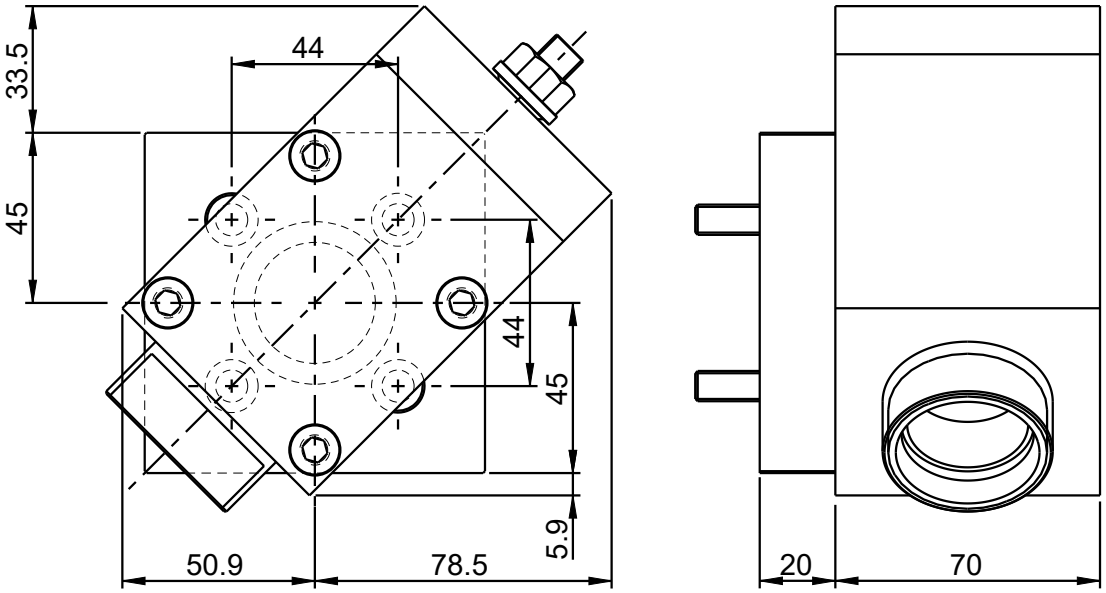
1) IF DURING THE CHECK THE VALVE DOES NOT OPERATE TAKE OFF THE CAP AND THE ADJUST THE VALVE BY TURNING 1/4 OF A ROUND AT A TIME, REPEAT THE CHECK UNTIL IT FUNCTIONS.
2) THE VALVE CAN BE ORIENTATED IN ANY DIRECTION.
3) THE VALVE IS ALREADY CALIBRATED.
4) FOR SYSTEMS WITH TO OR MORE PISTONS, EACH FITTED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

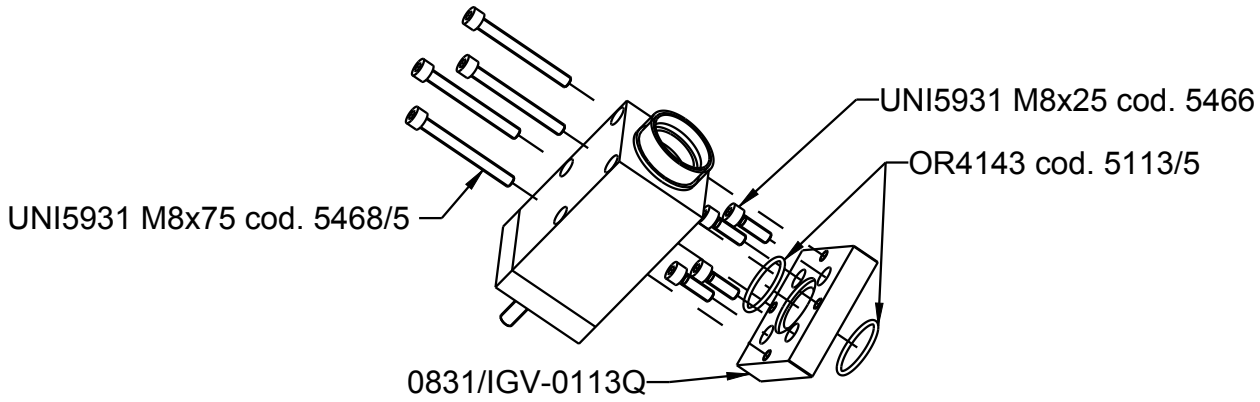
UT	FUNCTIONAL CHECKING OF THE ADJUSTABLE FLOW RELIEF VALVE	DATE 11/11
		DWG N. 9340

ADATTATORE/ADAPTER 0831/IGV-0113Q + VP 1"1/2



ADATTATORE/ADAPTER 0831/IGV-0113Q + VP 1"1/4





UT	dimensioni VP 1"1/2; 1"1/4 con adattatore IGV/dimension VP 1"1/2; 1"1/4 with IGV adapter	DATA 04/26
MORIS		N DIS. 9341
9341-VP-1_1-2-IT		3D STATUS: In fase di elaborazione