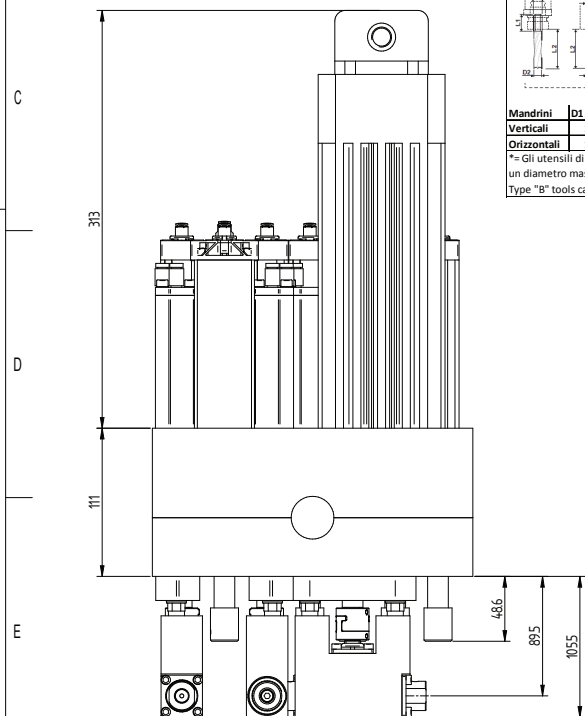
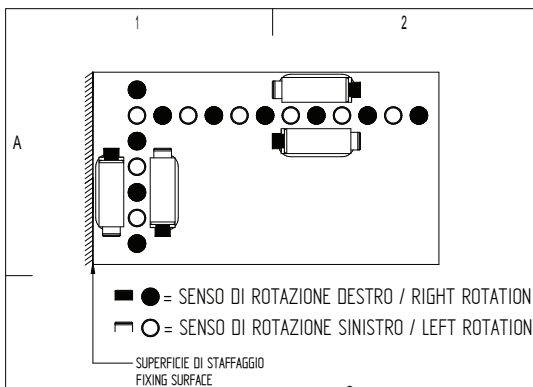


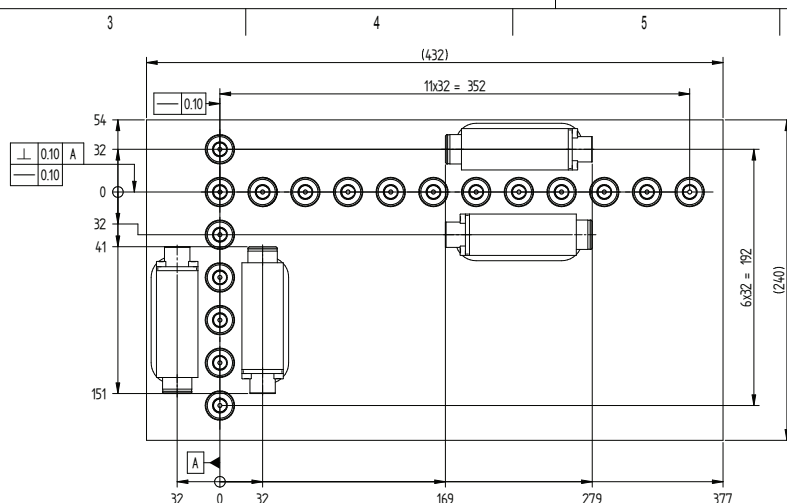


WARM-UP CYCLE
Provide, for each daily startup of the machine, the following warm-up cycle for boring heads:

STEP 1
Head at **4000 rpm** (rotation of vertical spindles) for 2 minutes. During this phase, all vertical and horizontal spindles must be ejected one at a time and remain in the working position for about 1 second. Pneumatic handling of the spindles must be performed in a cyclic manner throughout the duration of this step.

STEP 2
Head at **5000 rpm** (rotation of vertical spindles) for 2 minutes. During this phase, all vertical and horizontal spindles must be ejected one at a time and remain in the working position for about 1 second. Pneumatic handling of the spindles must be performed in a cyclic manner throughout the duration of this step.

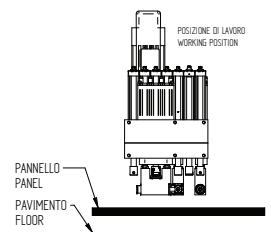
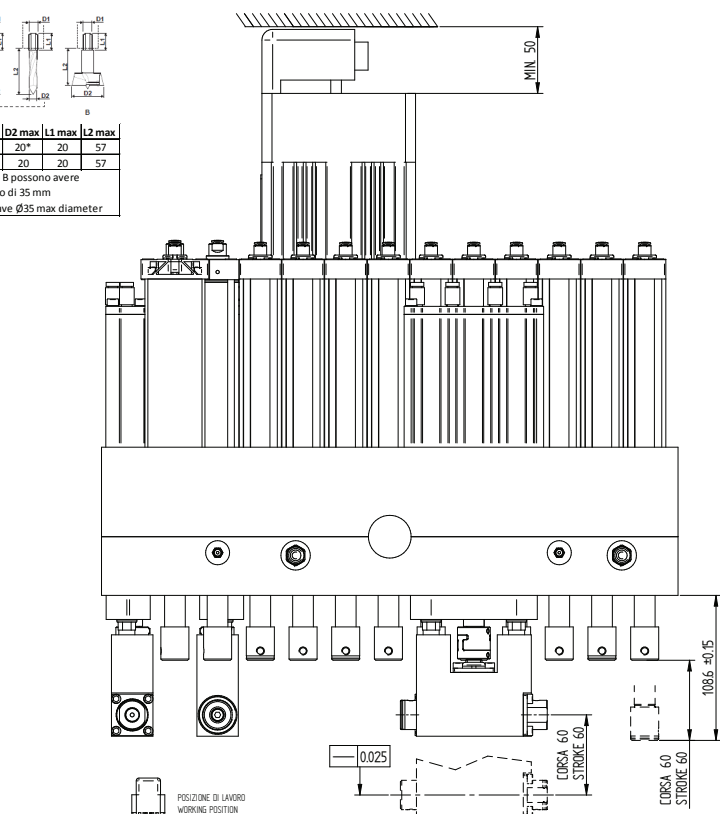
STEP 3
Head at **6000 rpm** (rotation of vertical spindles) for 1 minute. During this phase, vertical and horizontal spindles must be ejected together and remain in the working position for about 3 seconds. Pneumatic handling of the spindles must be performed in a cyclic manner throughout the duration of this step. At the end of warm-up cycle the temperature of the head, detected on case and cover, must be greater than 25 °C. Otherwise repeat step 3 until exceeding the displayed temperature.



**DATI UTENSILI DI FORATURA
TOOLS DATASHEET**

Mandrini	D1 max	D2 max	L1 max	L2 max
Verticali	10	20*	20	57
Orizzontali	10	20	20	57

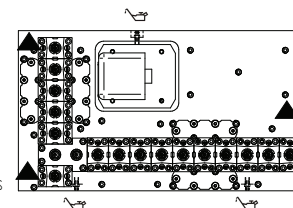
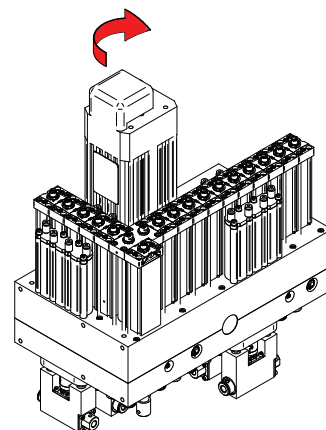
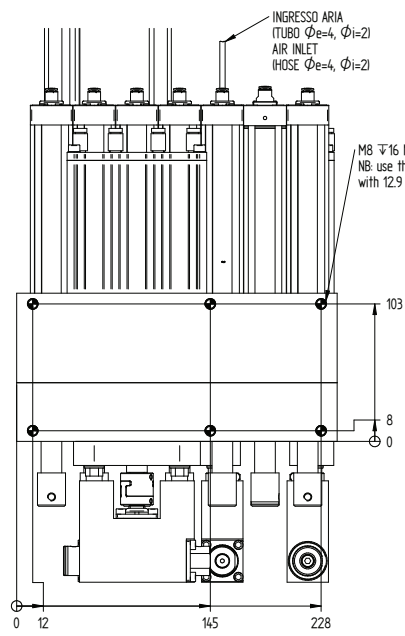
*= Gli utensili di tipo B possono avere un diametro massimo di 35 mm
Type "B" tools can have Ø35 max diameter



Boring head technical features / Caratteristiche tecniche testa			
Working parameters	Parametri di lavoro		[unità misura] [unit]
Max working frequency	Frequenza di lavoro massima	70	Hz
Speed ratio (V spindles / motor)	Rapporto di trasmissione (mandrino V / motore)	1.46 / 1	OUT / IN
Motor rotation	Senso di rotazione del motore	destra / right	
Max vertical spindles speed (70 Hz)	Regime massimo di rot. mand. verticali (70 Hz)	6000	rpm
Max horizontal spindles speed (70 Hz)	Regime massimo di rotazione orizzontali (70 Hz)	4740	rpm
Max working temperature	Temperatura massima di funzionamento	85	°C
Max Noise	Rumorosità massima	85	dB
Acceleration ramp (0-6000 rpm)	Rampa di accelerazione (0-6000 rpm)	> 1	s
Max blade spindles speed (70 Hz)	Regime massimo di rotazione lama (70 Hz)	-	rpm
Oval cylinder thrust	Spinta camicie ovali	460 (6 bar)	N
Round cylinder thrust	Spinta camicie tonde	305 (6 bar)	N
Vertical spindles stroke	Corsa mandrini verticali	60	mm
Horizontal spindles stroke	Corsa mandrini orizzontali	60	mm
Weight	Peso	~ 45	kg
Tools coupling	Connessione utensili	Ø10	mm
Max blade diameter	Diametro massimo lama	-	mm
Lubrication type	Tipo lubrificazione	MANUALE	-
Transmission lubrication	Lubrificazione trasmissione	KLUBER TOPAS L32N	-
Supply air pressure	Pressione di alimentazione aria	6 (7 max)	bar
Liquid cooling	Raffreddamento a liquido	-	-
Chiller flow	Portata del refrigeratore	-	l/min
Chilling dissipated power	Potenza dissipata nel raffreddamento	-	W
Refrigeration fluid temperature	Temperatura fluido refrigerante	-	°C
Working environment temperature	Temperatura ambiente di lavoro	5÷40	°C
Motor rated data		Dati nominali motore	
Rated power	Potenza nominale	1.7	kW
Rated voltage	Tensione nominale	230/400	V
Rated frequency	Frequenza nominale	50	Hz
Rated current	Corrente nominale	7.4/4.3	A
Rated speed	Velocità di rotazione nominale	2790	rpm
cos φ	cos φ	0.72	-

SPECIFICATIONS FOR THE COMPRESSED AIR OF THE PNEUMATIC SUPPLY
Introduce compressed air with purity according to ISO 8573-1, Class 3, 4, 2, 1, i.e.:
Class 3 for the solid particles (size of the solid particles < 1 µm)
Class 4 for humidity (dew point < 3 °C (37.5 °F))
Class 2 for total oil (oil concentration < 0.1 mg/m3)

GREASING TIME
Frequency every 40h of operation
Qty of grease for each grease nipple 5 grams
Number of grease nipples 3



REV.	DESCRIZIONE REVISIONE / REVISION DESCRIPTION	DATA / DATE	PRIMA STADY
01	08/06/2015	08/06/2015	
02	08/06/2015	08/06/2015	
03	08/06/2015	08/06/2015	
04	08/06/2015	08/06/2015	
05	08/06/2015	08/06/2015	
06	08/06/2015	08/06/2015	
07	08/06/2015	08/06/2015	
08	08/06/2015	08/06/2015	
09	08/06/2015	08/06/2015	
10	08/06/2015	08/06/2015	
11	08/06/2015	08/06/2015	
12	08/06/2015	08/06/2015	
13	08/06/2015	08/06/2015	
14	08/06/2015	08/06/2015	
15	08/06/2015	08/06/2015	
16	08/06/2015	08/06/2015	
17	08/06/2015	08/06/2015	
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96	08/06/2015	08/06/2015	
97	08/06/2015	08/06/2015	
98	08/06/2015	08/06/2015	
99	08/06/2015	08/06/2015	
100	08/06/2015	08/06/2015	

GR. TESTA 18V 4H C60 Ø10 1.7kW

HSD
DIVISION
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