

SUPERPRO™ GEAR DRIVEN SPRINKLER SETTING INSTRUCTIONS

NOTE: The SuperPro is factory preset with a 90° arc setting, and includes a pre-installed #2.5 nozzle.

CHANGING A NOZZLE

1. REMOVING THE NOZZLE RETENTION SCREW

Use your key (B) or a small flat blade screwdriver to remove the nozzle retention screw (M) by turning counter-clockwise to remove and clockwise to re-install.

2. PULL UP THE RISER

Insert the key (A) in the keyhole (C) on the top of the nozzle turret (D) and turn the key ¼ turn to insure that the key does not slip out of the keyhole when you pull it up. Firmly pull up the entire spring-loaded riser to access the nozzle socket (G). Hold the riser assembly with one hand.

3. REMOVING THE NOZZLE

With the nozzle retention screw (M) removed, insert the key (B) into the slot directly under the nozzle "prongs" (H) at the top of the nozzle. Now, turn the key ¼ turn to "hook" the nozzle and pull the nozzle out.

4. INSTALLING A NOZZLE

Press the desired nozzle into the nozzle socket (G). Make sure the nozzle number is visible and the nozzle "prongs" (H) are up. Then, re-install the nozzle retention screw (M). **NOTE:** The nozzle retention screw is also a break-up screw and used to adjust the distance of the spray.

SETTING THE ARC ADJUSTMENT

1. FINDING THE LEFT START POSITION

Place your finger on the top center of the nozzle turret (D). Rotate the turret to the right until it stops and then back to the left until it stops. Notice the position of the nozzle arrow. (L) This is the "Left Start" position. The sprinkler will begin spraying from this position and rotate clockwise until it reaches the right Adjustable Stop-Return Point.

2. ORIENTING THE LEFT START POSITION

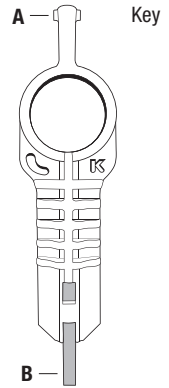
Insert the key (A) in the keyhole (C) on the top of the nozzle turret (D) and turn the key ¼ turn to insure that the key does not slip out of the keyhole when you pull it up. Being careful not to allow the nozzle turret to turn, firmly pull up the entire spring-loaded riser. Hold the lower riser assembly up with one hand. Now turn only the lower riser (E) clockwise or counter-clockwise until the nozzle arrow is pointing where you want the sprinkler to begin spraying.

3. CHANGING THE ARC

Insert the key (B) or a small flat blade screwdriver into the arc set adjustment slot (N). Turn clockwise to increase the arc or counter-clockwise to decrease the arc. **NOTE:** The arc set arrow in the center of the nozzle turret rotates to show the current setting. When set at 360°, the SuperPro will rotate continuously in a clockwise direction.

4. OPERATING THE SHUT OFF

To shut off the water flow, insert your key into the flow shut-off slot (P) and turn counter-clockwise. During system operation, the riser will remain elevated. To open flow again, turn key clockwise.



SPRINKLER INSTALLATION

1. INSTALL AND BURY

Thread the sprinkler on the pipe. Bury the sprinkler flush to grade. **NOTE:** Do not use pipe dope. Gear driven sprinklers and pop-up sprays should not be installed on the same watering zone.

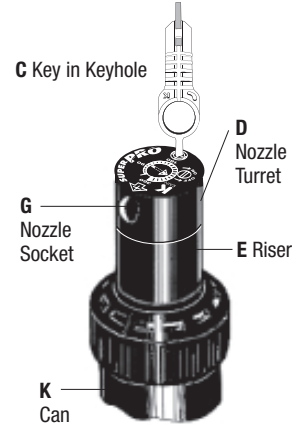
2. INSPECTING THE FILTER

Unscrew the top and lift the complete sprinkler assembly (J) out of the housing can (K). The filter is located on the bottom of the sprinkler assembly and can be easily pulled out, cleaned and re-installed.

3. WINTERIZATION TIPS

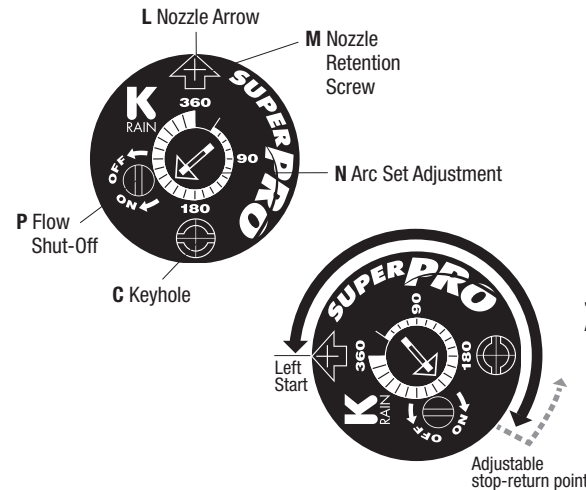
When using an air compressor to remove water from the system please note the following:

- Do not exceed 30 PSI.
- Always introduce air into the system gradually to avoid air pressure surges. Sudden release of compressed air into the sprinkler can cause damage.
- Each zone should run no longer than 1 minute on air. Sprinklers turn 10 to 12 time faster on air than on water. Over spinning rotors on air can cause damage to the internal components.



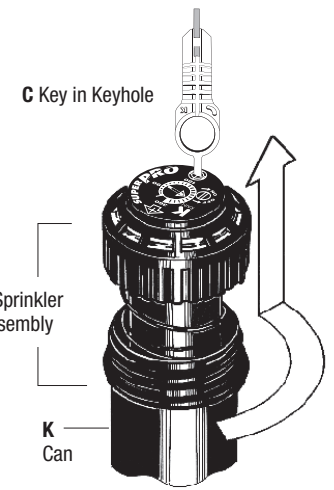
PERFORMANCE DATA

| PERFORMANCE | | | | METRIC | | | | | |
|-----------------------|-----------------|---------------|-------------|-----------------------|-----------------|------------------|---------------------|-------|------|
| NOZZLES | PRESSURE PSI | RADIUS FT. | FLOW GPM | NOZZLES | PRESSURE KPA | RADIUS METERS | FLOW L/M M3/H | | |
| #0.5 | 30 | 30' | .45 | #0.5 | 207 | 2.1 | 9.1 | 1.70 | .10 |
| | 40 | 29' | .5 | | 276 | 2.8 | 8.8 | 1.89 | .11 |
| | 50 | 26' | .6 | | 345 | 3.4 | 7.9 | 2.27 | .14 |
| | 60 | 26' | .7 | | 414 | 4.1 | 7.9 | 2.65 | .16 |
| #0.75 | 30 | 32' | .7 | #0.75 | 207 | 2.1 | 9.8 | 2.65 | .16 |
| | 40 | 32' | .8 | | 276 | 2.8 | 9.8 | 3.03 | .18 |
| | 50 | 33' | .9 | | 345 | 3.4 | 10.1 | 3.41 | .20 |
| | 60 | 33' | 1.0 | | 414 | 4.1 | 10.1 | 3.79 | .23 |
| #1 | 30 | 30' | 1.1 | #1 | 207 | 2.1 | 9.1 | 4.16 | .25 |
| | 40 | 32' | 1.3 | | 276 | 2.8 | 9.8 | 4.92 | .30 |
| | 50 | 33' | 1.5 | | 345 | 3.4 | 10.1 | 5.68 | .34 |
| | 60 | 33' | 1.6 | | 414 | 4.1 | 10.1 | 6.06 | .36 |
| #2 | 30 | 38' | 2.3 | #2 | 207 | 2.1 | 11.6 | 8.71 | .52 |
| | 40 | 38' | 2.5 | | 276 | 2.8 | 11.6 | 9.46 | .57 |
| | 50 | 40' | 2.7 | | 345 | 3.4 | 12.2 | 10.22 | .61 |
| | 60 | 42' | 3.0 | | 414 | 4.1 | 12.8 | 11.36 | .68 |
| #2.5 PRE-INSTALLED | 30 | 35' | 2.5 | #2.5 PRE-INSTALLED | 207 | 2.1 | 10.7 | 9.46 | .57 |
| | 40 | 36' | 2.8 | | 276 | 2.8 | 11.0 | 10.60 | .64 |
| | 50 | 37' | 3.2 | | 345 | 3.4 | 11.3 | 12.11 | .73 |
| | 60 | 38' | 3.6 | | 414 | 4.1 | 11.6 | 13.63 | .82 |
| #3 | 30 | 35' | 3.4 | #3 | 207 | 2.1 | 10.7 | 12.87 | .77 |
| | 40 | 36' | 3.8 | | 276 | 2.8 | 11.0 | 14.38 | .86 |
| | 50 | 38' | 4.2 | | 345 | 3.4 | 11.6 | 15.90 | .95 |
| | 60 | 39' | 4.8 | | 414 | 4.1 | 11.9 | 18.17 | 1.09 |
| #4 | 30 | 42' | 4.1 | #4 | 207 | 2.1 | 12.8 | 15.52 | .93 |
| | 40 | 44' | 4.6 | | 276 | 2.8 | 13.4 | 17.41 | 1.04 |
| | 50 | 45' | 5.1 | | 345 | 3.4 | 13.7 | 19.31 | 1.16 |
| | 60 | 46' | 5.7 | | 414 | 4.1 | 14.0 | 21.58 | 1.29 |
| #6 | 40 | 46' | 5.8 | #6 | 276 | 2.8 | 14.0 | 21.96 | 1.32 |
| | 50 | 48' | 6.4 | | 345 | 3.4 | 14.6 | 24.23 | 1.45 |
| | 60 | 49' | 7.0 | | 414 | 4.1 | 14.9 | 26.50 | 1.59 |
| | 70 | 49' | 7.5 | | 483 | 4.8 | 14.9 | 28.39 | 1.70 |
| #8 | 40 | 42' | 7.5 | #8 | 276 | 2.8 | 12.8 | 28.39 | 1.70 |
| | 50 | 45' | 8.2 | | 345 | 3.4 | 13.7 | 31.04 | 1.86 |
| | 60 | 48' | 9.0 | | 414 | 4.1 | 14.6 | 34.07 | 2.04 |
| | 70 | 48' | 9.5 | | 483 | 4.8 | 14.6 | 35.96 | 2.16 |



| LOW ANGLE DATA | | | |
|----------------|-----------------|---------------|-------------|
| NOZZLES | PRESSURE PSI | RADIUS FT. | FLOW GPM |
| #1 | 30 | 26' | 1.3 |
| | 40 | 27' | 1.5 |
| | 50 | 27' | 1.7 |
| | 60 | 28' | 1.9 |
| #3 | 30 | 29' | 2.9 |
| | 40 | 30' | 3.3 |
| | 50 | 31' | 3.4 |
| | 60 | 33' | 4.0 |
| #4 | 30 | 28' | 4.0 |
| | 40 | 31' | 4.7 |
| | 50 | 34' | 5.0 |
| | 60 | 36' | 6.0 |
| #6 | 40 | 30' | 6.0 |
| | 50 | 34' | 7.0 |
| | 60 | 37' | 7.8 |
| | 70 | 38' | 8.2 |

| METRIC | | | | | |
|---------|-----------------|------------------|---------------------|-------|------|
| NOZZLES | PRESSURE KPA | RADIUS METERS | FLOW L/M M3/H | | |
| #1 | 207 | 2.1 | 7.9 | 4.92 | .30 |
| | 276 | 2.8 | 8.2 | 5.68 | .34 |
| | 345 | 3.4 | 8.2 | 6.44 | .39 |
| | 414 | 4.1 | 8.5 | 7.19 | .43 |
| #3 | 207 | 2.1 | 8.8 | 10.98 | .66 |
| | 276 | 2.8 | 9.1 | 12.49 | .75 |
| | 345 | 3.4 | 9.4 | 12.87 | .77 |
| | 414 | 4.1 | 10.1 | 15.14 | .91 |
| #4 | 207 | 2.1 | 8.5 | 15.14 | .91 |
| | 276 | 2.8 | 9.4 | 17.79 | 1.07 |
| | 345 | 3.4 | 10.4 | 18.93 | 1.14 |
| | 414 | 4.1 | 11.0 | 22.71 | 1.36 |
| #6 | 207 | 2.8 | 9.1 | 22.71 | 1.36 |
| | 276 | 3.4 | 10.4 | 26.50 | 1.59 |
| | 345 | 4.1 | 11.3 | 29.53 | 1.77 |
| | 414 | 4.8 | 11.6 | 31.04 | 1.86 |



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* Data represents test results in zero wind. Adjust for local conditions. Radius may be reduced with nozzle retention screw.

INSTRUCCIONES DE AJUSTE DEL ASPERSOR DE TURBINA SUPERPRO™

OBSERVACIÓN: El SuperPro viene configurado previamente de fábrica con un ajuste del sector a 90° e incluye la preinstalación de una tobera del No. 2.5.

CAMBIO DE LA TOBERA

1. CÓMO QUITAR EL TORNILLO DE SUJECIÓN

Utilice la llave (B) o un destornillador pequeño de punta plana para retirar el tornillo de sujeción de la tobera (M), girándolo en el sentido contrario al de las agujas del reloj para quitarlo y en el sentido de las agujas del reloj para volverlo a colocar.

2. ELEVACIÓN DEL VÁSTAGO

Inserte la llave (A) en el orificio (C) situado en la parte superior de la cabeza giratoria (D) y gire la llave ¼ de vuelta para asegurarse de que la llave no se sale del orificio cuando lo levante. Tire hacia arriba y con fuerza del vástago para vencer la resistencia del muelle, y así acceder al hueco de la tobera (G). Sujete el vástago con una mano cuando esté arriba.

3. CÓMO QUITAR LA TOBERA

Retirado el tornillo de sujeción de la tobera (M), inserte la llave (B) en la ranura directamente debajo de los "dientes" (H) de la tobera en la parte superior de ésta. A continuación, gire la llave ¼ de vuelta para "enganchar" la tobera y tire de ésta.

4. INSTALACIÓN DE UNA TOBERA

Inserte a presión la tobera deseada en su correspondiente hueco (G). Asegúrese de que es visible el número de la tobera y que los "dientes" (H) de ésta están hacia arriba. A continuación, vuelva a colocar el tornillo de sujeción de la tobera (M). **OBSERVACIÓN:** El tornillo de sujeción de la tobera también permite acortar el alcance del chorro, así como para usarlo de difusor del chorro.

DETERMINACIÓN DEL AJUSTE DEL SECTOR

1. CÓMO ENCONTRAR LA POSICIÓN DE ARRANQUE A LA IZQUIERDA

Ponga el dedo en la parte superior central de la cabeza giratoria (D). Gire la cabeza hacia la derecha hasta que se pare y a continuación de nuevo hacia la izquierda hasta que se pare. Observe la posición de la flecha de la tobera. (L) Esta es la posición de "Arranque a la izquierda". El aspersor empezará a pulverizar desde esta posición y a girar en el sentido de las agujas del reloj hasta que llegue a Punto ajustable derecho de Parada-Retorno.

2. CÓMO ORIENTAR LA POSICIÓN DE ARRANQUE A LA IZQUIERDA

Inserte la llave (A) en el orificio (C) situado en la parte superior de la cabeza giratoria (D) y gire la llave ¼ de vuelta para asegurarse de que la llave no se sale del ojo cuando la levante. Con cuidado de no dejar que gire la cabeza de la tobera, tire con firmeza del vástago accionado por resorte. Sujete el ensamblaje del vástago inferior con una mano. A continuación gire únicamente el vástago inferior (E) en el sentido de las agujas del reloj o contrario a estas hasta que la flecha de la tobera apunte al lugar donde usted desea empezar a regar.

3. CAMBIO DEL SECTOR

Inserte la llave (B) en la ranura de ajuste del sector (N). Gírela en el sentido de las agujas del reloj para aumentar el sector o en sentido contrario a las agujas del reloj para reducir el sector. **OBSERVACIÓN:** La flecha de ajuste del sector situada en el centro de la cabeza de la tobera gira para indicar el ajuste actual. Cuando Esté Ajustada a 360°, el SuperPro Girará Continuamente en la Dirección de las Agujas del Reloj.

4. MANEJO DEL CIERRE

Para cerrar el caudal de agua, inserte la llave en la ranura de cierre (shut off) (P) y gírela en el sentido contrario al de las agujas del reloj. Durante el funcionamiento del sistema, el vástago permanecerá elevado. Para abrir de nuevo el caudal, gire la llave en el sentido de las agujas del reloj.

INSTALACIÓN DE LOS ASPERSORES

1. COLOCACION DE LOS ASPERSORES EN EL TERRENO

No utilice TEFLÓN en la rosca. Enrosque el aspersor a la tubería. Entierre el aspersor al nivel de la superficie. **OBSERVACIÓN:** Los aspersores de turbina y los difusores emergentes no deben ser instalados en el mismo sector de riego.

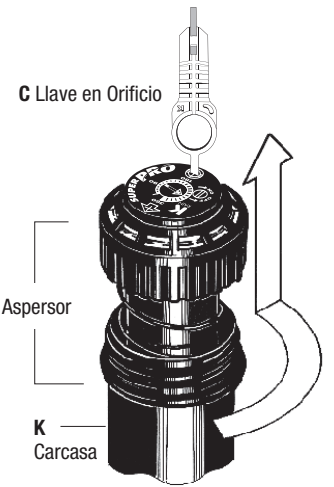
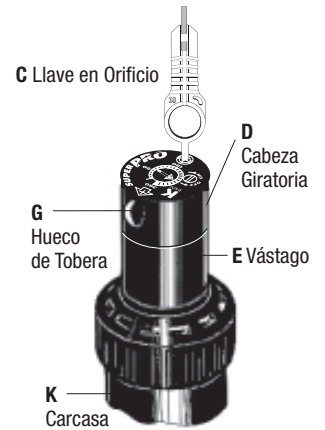
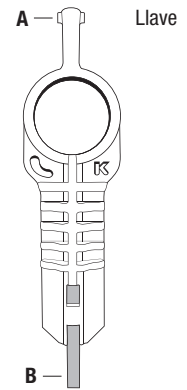
2. INSPECCIÓN DEL FILTRO

Desenrosque la tapa del aspersor y saque todo el ensamblaje (J) del aspersor de su carcasa (K). El filtro está situado en la parte inferior del ensamblaje del aspersor y se puede sacar, limpiar y volver a instalar fácilmente.

3. CONSEJOS DE CARA AL INVIERNO

Es aconsejable utilizar un compresor de aire para eliminar el agua del sistema de tuberías y aspersores, a fin de evitar los daños por heladas. Si lo hace tenga en cuenta lo siguiente:

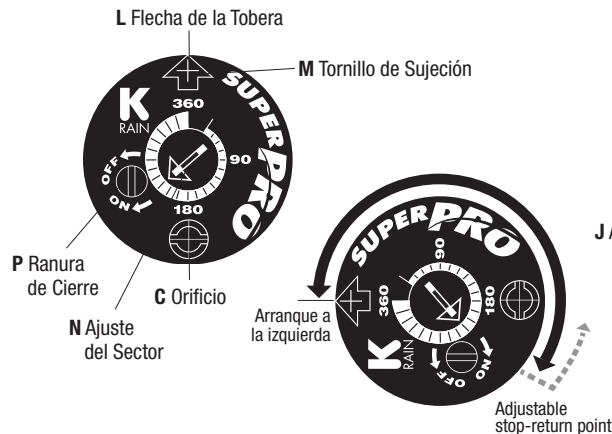
- No exceda la presión de 30 PSI (1 Atm (1 Kg/cm²)).
- Introduzca siempre aire en el sistema de forma gradual para evitar aumentos repentinos de la presión. Una salida repentina de aire comprimido al aspersor puede causar daños.
- Cada una de las zonas deberá funcionar con aire comprimido no más de 1 minuto. Los aspersores giran entre 10 y 12 veces más rápido con aire que con agua. Un giro excesivo de los aspersores de turbina con aire puede causar daños a los componentes internos.



RENDIMIENTO DE LAS TOBERAS ESTÁNDAR

| FUNCIONAMIENTO | | | | MÉTRICO | | | | | |
|----------------------------|-------------|-----------|------------|----------------------------|-------------|--------------|-----------------|-------|------|
| TOBERA | PRESIÓN PSI | RADIO FT. | CAUDAL GPM | TOBERA | PRESIÓN KPA | RADIO METROS | CAUDAL L/M M3/H | | |
| #0.5 | 30 | 30' | .45 | #0.5 | 207 | 2.1 | 9.1 | 1.70 | .10 |
| | 40 | 29' | .5 | | 276 | 2.8 | 8.8 | 1.89 | .11 |
| | 50 | 26' | .6 | | 345 | 3.4 | 7.9 | 2.27 | .14 |
| | 60 | 26' | .7 | | 414 | 4.1 | 7.9 | 2.65 | .16 |
| #0.75 | 30 | 32' | .7 | #0.75 | 207 | 2.1 | 9.8 | 2.65 | .16 |
| | 40 | 32' | .8 | | 276 | 2.8 | 9.8 | 3.03 | .18 |
| | 50 | 33' | .9 | | 345 | 3.4 | 10.1 | 3.41 | .20 |
| #1 | 60 | 33' | 1.0 | 414 | 4.1 | 10.1 | 3.79 | .23 | |
| | #1 | 30 | 30' | 1.1 | #1 | 207 | 2.1 | 9.1 | 4.16 |
| 40 | | 32' | 1.3 | 276 | | 2.8 | 9.8 | 4.92 | .30 |
| 50 | | 33' | 1.5 | 345 | | 3.4 | 10.1 | 5.68 | .34 |
| 60 | | 33' | 1.6 | 414 | | 4.1 | 10.1 | 6.06 | .36 |
| #2 | 30 | 38' | 2.3 | #2 | 207 | 2.1 | 11.6 | 8.71 | .52 |
| | 40 | 38' | 2.5 | | 276 | 2.8 | 11.6 | 9.46 | .57 |
| | 50 | 40' | 2.7 | | 345 | 3.4 | 12.2 | 10.22 | .61 |
| | 60 | 42' | 3.0 | | 414 | 4.1 | 12.8 | 11.36 | .68 |
| #2.5 INSTALADO PREVIAMENTE | 30 | 35' | 2.5 | #2.5 INSTALADO PREVIAMENTE | 207 | 2.1 | 10.7 | 9.46 | .57 |
| | 40 | 36' | 2.8 | | 276 | 2.8 | 11.0 | 10.60 | .64 |
| | 50 | 37' | 3.2 | | 345 | 3.4 | 11.3 | 12.11 | .73 |
| | 60 | 38' | 3.6 | | 414 | 4.1 | 11.6 | 13.63 | .82 |
| #3 | 30 | 35' | 3.4 | #3 | 207 | 2.1 | 10.7 | 12.87 | .77 |
| | 40 | 36' | 3.8 | | 276 | 2.8 | 11.0 | 14.38 | .86 |
| | 50 | 38' | 4.2 | | 345 | 3.4 | 11.6 | 15.90 | .95 |
| | 60 | 39' | 4.8 | | 414 | 4.1 | 11.9 | 18.17 | 1.09 |
| #4 | 30 | 42' | 4.1 | #4 | 207 | 2.1 | 12.8 | 15.52 | .93 |
| | 40 | 44' | 4.6 | | 276 | 2.8 | 13.4 | 17.41 | 1.04 |
| | 50 | 45' | 5.1 | | 345 | 3.4 | 13.7 | 19.31 | 1.16 |
| | 60 | 46' | 5.7 | | 414 | 4.1 | 14.0 | 21.58 | 1.29 |
| #6 | 40 | 46' | 5.8 | #6 | 276 | 2.8 | 14.0 | 21.96 | 1.32 |
| | 50 | 48' | 6.4 | | 345 | 3.4 | 14.6 | 24.23 | 1.45 |
| | 60 | 49' | 7.0 | | 414 | 4.1 | 14.9 | 26.50 | 1.59 |
| | 70 | 49' | 7.5 | | 483 | 4.8 | 14.9 | 28.39 | 1.70 |
| #8 | 40 | 42' | 7.5 | #8 | 276 | 2.8 | 12.8 | 28.39 | 1.70 |
| | 50 | 45' | 8.2 | | 345 | 3.4 | 13.7 | 31.04 | 1.86 |
| | 60 | 48' | 9.0 | | 414 | 4.1 | 14.6 | 34.07 | 2.04 |
| | 70 | 48' | 9.5 | | 483 | 4.8 | 14.6 | 35.96 | 2.16 |

Los datos representan resultados en pruebas efectuadas en el SuperPro sin viento.



BOQUILLAS DE ANGULO BAJO

| TOBERA | PRESIÓN PSI | RADIO FT. | CAUDAL GPM |
|--------|-------------|-----------|------------|
| #1 | 30 | 26' | 1.3 |
| | 40 | 27' | 1.5 |
| | 50 | 27' | 1.7 |
| | 60 | 28' | 1.9 |
| #3 | 30 | 29' | 2.9 |
| | 40 | 30' | 3.3 |
| | 50 | 31' | 3.4 |
| | 60 | 33' | 4.0 |
| #4 | 30 | 28' | 4.0 |
| | 40 | 31' | 4.7 |
| | 50 | 34' | 5.0 |
| | 60 | 36' | 6.0 |
| #6 | 40 | 30' | 6.0 |
| | 50 | 34' | 7.0 |
| | 60 | 37' | 7.8 |
| | 70 | 38' | 8.2 |

BOQUILLAS DE ANGULO BAJO, MÉTRICO

| TOBERA | PRESIÓN KPA | BARES | RADIO METROS | CAUDAL L/M M3/H | |
|--------|-------------|-------|--------------|-----------------|------|
| #1 | 207 | 2.1 | 7.9 | 4.92 | .30 |
| | 276 | 2.8 | 8.2 | 5.68 | .34 |
| | 345 | 3.4 | 8.2 | 6.44 | .39 |
| | 414 | 4.1 | 8.5 | 7.19 | .43 |
| #3 | 207 | 2.1 | 8.8 | 10.98 | .66 |
| | 276 | 2.8 | 9.1 | 12.49 | .75 |
| | 345 | 3.4 | 9.4 | 12.87 | .77 |
| | 414 | 4.1 | 10.1 | 15.14 | .91 |
| #4 | 207 | 2.1 | 8.5 | 15.14 | .91 |
| | 276 | 2.8 | 9.4 | 17.79 | 1.07 |
| | 345 | 3.4 | 10.4 | 18.93 | 1.14 |
| | 414 | 4.1 | 11.0 | 22.71 | 1.36 |
| #6 | 207 | 2.8 | 9.1 | 22.71 | 1.36 |
| | 276 | 3.4 | 10.4 | 26.50 | 1.59 |
| | 345 | 4.1 | 11.3 | 29.53 | 1.77 |
| | 414 | 4.8 | 11.6 | 31.04 | 1.86 |



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