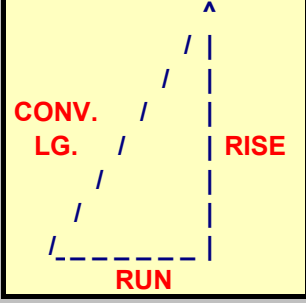


| <b>SCREW CONVEYOR SPEED CALCULATION</b> |              |
|---|--------------|
| VERSION 1.1 7/10/98                     |              |
| SCREW DIA., INCHES :                    | 14.000 IN.   |
| FLIGHT PITCH, INCHES :                  | 7.000 IN.    |
| PIPE / TUBE O.D., INCHES :              | 4.000 IN.    |
| % OF TROUGH LOAD (30,45,ETC.):          | 100 %        |
| CAPACITY REQ'D. , CU. FT. / HR :        | 6250.000 CFH |
| CFH / RPM =                             | 34.362       |
| <b>SCREW RPM =</b>                      | <b>181.9</b> |

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| SCREW DEFLECTION  |   |   |
|---|---|---|
| VERSION 1.1 7/10/98   |   |   |
| <b>STD. CALCULATON</b>  | <b>SPECIAL PIPE / TUBE / SHAFT</b>                            | <b>CACULATION BY WEIGHT</b>   |
| SCREW DIA. : <input style="width: 90%;" type="text"/>         | SCREW DIA. : <input style="width: 90%;" type="text"/>         | SCREW WEIGHT : <input style="width: 90%;" type="text" value="21"/>            |
| FLIGHT PITCH : <input style="width: 90%;" type="text"/>       | FLIGHT PITCH : <input style="width: 90%;" type="text"/>       | NOMINAL PIPE SIZE : <input style="width: 90%;" type="text" value="4.5"/>      |
| FLIGHT THK'NS : <input style="width: 90%;" type="text"/>      | FLIGHT THK'NS : <input style="width: 90%;" type="text"/>      | PIPE SCH. (40, 80) : <input style="width: 90%;" type="text" value="40"/>      |
| NOMINAL PIPE SIZE : <input style="width: 90%;" type="text"/>  | PIPE / TUBE O.D. : <input style="width: 90%;" type="text"/>   | LENGTH , FEET: <input style="width: 90%;" type="text" value="25.000 FT"/>     |
| PIPE SCH. (40, 80) : <input style="width: 90%;" type="text"/> | WALL THK'NS : <input style="width: 90%;" type="text"/>        | MID-SPAN. DEFL. : <input style="width: 90%;" type="text" value="0.0352 IN."/> |
| LENGTH, FEET : <input style="width: 90%;" type="text"/>       | LENGTH, FEET : <input style="width: 90%;" type="text"/>       |   |
| M, SS ? : <input style="width: 90%;" type="text"/>            | M, SS ? : <input style="width: 90%;" type="text"/>            |   |
| 1-1/4" TO 12" PIPE, SCH. 40 & 80                              | FOR SHAFT, I.D. = 0   |   |
|   | Moment of Inertia. : <input style="width: 90%;" type="text"/> | <b>OPTION :</b>   |
| TOTAL WEIGHT : <input style="width: 90%;" type="text"/>       | TOTAL WEIGHT : <input style="width: 90%;" type="text"/>       | SCREW WEIGHT : <input style="width: 90%;" type="text"/>                       |
|   |   | PIPE / TUBE O.D. : <input style="width: 90%;" type="text"/>                   |
|   |   | WALL THK'NS : <input style="width: 90%;" type="text"/>                        |
| MID-SPAN. DEFL. : <input style="width: 90%;" type="text"/>    | MID-SPAN DEFL. : <input style="width: 90%;" type="text"/>     | LENGTH , FEET: <input style="width: 90%;" type="text"/>                       |
|   |   | Moment of Inertia. : <input style="width: 90%;" type="text"/>                 |
|   |   | MID-SPAN DEFL. : <input style="width: 90%;" type="text"/>                     |
| USE DECIMAL INCHES UNLESS NOTED                               | FILL IN GREEN CELLS ONLY                                      | USE DECIMAL INCHES UNLESS NOTED   |

| ANGLE OF INCLINE / SIDES OF A TRIANGLE |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
|--|---|---------|-------------|-------------|--------|-------------|--------|--------|--------|--|--|---------------------|--------|----------------|--------|--------------------|--------|----------------|-------------|
| VERSION 1.1 7/10/98                    |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN :<br>KNOWN :<br>FIND :<br>FIND : | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">ANGLE :</td><td style="text-align: center;">40.000 DEG.</td></tr> <tr><td style="text-align: center;">CONV. LG. :</td><td style="text-align: center;">82.000</td></tr> <tr><td style="text-align: center;">RISE =</td><td style="text-align: center;">52.708</td></tr> <tr><td style="text-align: center;">RUN =</td><td style="text-align: center;">62.816</td></tr> </table> | ANGLE : | 40.000 DEG. | CONV. LG. : | 82.000 | RISE =      | 52.708 | RUN =  | 62.816 |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">KNOWN : CONV. LG. :</td><td style="text-align: center;">7.000</td></tr> <tr><td style="text-align: center;">KNOWN : RISE :</td><td style="text-align: center;">3.750</td></tr> <tr><td style="text-align: center;">FIND : RUN =</td><td style="text-align: center;">5.911</td></tr> <tr><td style="text-align: center;">FIND : ANGLE =</td><td style="text-align: center;">32.392 DEG.</td></tr> </table>   | KNOWN : CONV. LG. : | 7.000  | KNOWN : RISE : | 3.750  | FIND : RUN =       | 5.911  | FIND : ANGLE = | 32.392 DEG. |
| ANGLE :                                | 40.000 DEG.   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| CONV. LG. :                            | 82.000  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| RISE =                                 | 52.708  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| RUN =                                  | 62.816  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN : CONV. LG. :                    | 7.000   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN : RISE :                         | 3.750   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| FIND : RUN =                           | 5.911   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| FIND : ANGLE =                         | 32.392 DEG.   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN :<br>KNOWN :<br>FIND :<br>FIND : | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">ANGLE :</td><td style="background-color: #90ee90;"></td></tr> <tr><td style="text-align: center;">RISE :</td><td style="background-color: #90ee90;"></td></tr> <tr><td style="text-align: center;">CONV. LG. =</td><td style="background-color: #ffffcc;"></td></tr> <tr><td style="text-align: center;">RUN =</td><td style="background-color: #ffffcc;"></td></tr> </table>  | ANGLE : |             | RISE :      |        | CONV. LG. = |        | RUN =  |        |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">KNOWN : CONV. LG. :</td><td style="text-align: center;">21.000</td></tr> <tr><td style="text-align: center;">KNOWN : RUN :</td><td style="text-align: center;">20.396</td></tr> <tr><td style="text-align: center;">FIND : RISE =</td><td style="text-align: center;">5.000</td></tr> <tr><td style="text-align: center;">FIND : ANGLE =</td><td style="text-align: center;">13.78 DEG.</td></tr> </table>  | KNOWN : CONV. LG. : | 21.000 | KNOWN : RUN :  | 20.396 | FIND : RISE =      | 5.000  | FIND : ANGLE = | 13.78 DEG.  |
| ANGLE :                                |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| RISE :                                 |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| CONV. LG. =                            |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| RUN =                                  |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN : CONV. LG. :                    | 21.000  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN : RUN :                          | 20.396  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| FIND : RISE =                          | 5.000   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| FIND : ANGLE =                         | 13.78 DEG.  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN :<br>KNOWN :<br>FIND :<br>FIND : | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">ANGLE :</td><td style="background-color: #90ee90;"></td></tr> <tr><td style="text-align: center;">RUN :</td><td style="background-color: #90ee90;"></td></tr> <tr><td style="text-align: center;">CONV. LG. =</td><td style="background-color: #ffffcc;"></td></tr> <tr><td style="text-align: center;">RISE =</td><td style="background-color: #ffffcc;"></td></tr> </table>  | ANGLE : |             | RUN :       |        | CONV. LG. = |        | RISE = |        |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">KNOWN : RISE :</td><td style="text-align: center;">19.000</td></tr> <tr><td style="text-align: center;">KNOWN : RUN :</td><td style="text-align: center;">30.000</td></tr> <tr><td style="text-align: center;">FIND : CONV. LG. =</td><td style="text-align: center;">35.511</td></tr> <tr><td style="text-align: center;">FIND : ANGLE =</td><td style="text-align: center;">32.35 DEG.</td></tr> </table> | KNOWN : RISE :      | 19.000 | KNOWN : RUN :  | 30.000 | FIND : CONV. LG. = | 35.511 | FIND : ANGLE = | 32.35 DEG.  |
| ANGLE :                                |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| RUN :                                  |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| CONV. LG. =                            |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| RISE =                                 |   |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN : RISE :                         | 19.000  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| KNOWN : RUN :                          | 30.000  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| FIND : CONV. LG. =                     | 35.511  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |
| FIND : ANGLE =                         | 32.35 DEG.  |         |             |             |        |             |        |        |        |  |  |                     |        |                |        |                    |        |                |             |

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