MANCOOLERS

Macheta® Airfoil Propeller
Model UM / PUM / M39 / STL

Pedestal Mount Mancooler
Model PUM

Utility Mancooler
Model UM
**Utility Mancooler**

Aerovent’s Utility Mancoolers feature a quality, general purpose direct drive tubeaxial fan with the Macheta® airfoil propeller and front and rear PMS type guards for maximum protection and safety. The Utility Mancooler is mounted on a heavy duty tubular base with reinforcing gussets that act as mounting pads. The design enables the fan to operate on the floor as a free-standing unit or to be rotated in its base and mounted on the wall. The unit can also be supplied with optional locking wheels where fan mobility is required. Air delivery can be adjusted through 360°. Typical applications for the Utility Mancooler include welding booth and control panel ventilation, insect chasing, process cooling and smoke dissipation.

**Pedestal Mount Mancooler**

The Pedestal Mount Mancooler is an alternative to the standard Utility Mancooler model. The Pedestal Mount Mancooler uses a yoke assembly mounted on a predrilled mounting pad. The pedestal and yoke design enables the fan to be rotated and mounted in any position or location (i.e., on steel columns or ceiling beams). Pedestal Mount Mancoolers are available in the same sizes as the standard Utility Mancooler model. Air delivery can be adjusted through 360°. Specify pedestal mount when ordering.

**Model 39 Mancooler**

Adaptability and portability are the main features of the Model 39 Mancooler. The unit features a general purpose direct drive tubeaxial fan mounted in an adjustable lightweight tubular steel frame. The Model 39 Mancooler features front and rear PMS type guards for maximum protection and safety. Air delivery is adjustable through 180°. All Model 39 Mancoolers come equipped with a set of front wheels to easily relocate the fan where needed.

**Steeler Mancooler**

Some industries require mancooler fans that can withstand rough handling. The “Steeler” is specifically designed and built for heavy duty industrial use. Developed for steel mills, the “Steeler” Mancooler fan can be moved about as required — rolled on rough floors or moved by crane from one spot to another. To withstand this punishment, the tubeaxial section is banded with two extra angle rings around the middle to protect the fan motor. Guards are 14-gauge expanded metal type, and the support legs are structural angle iron with two steel locking wheels and two steel caster wheels for maneuverability. Air delivery can be adjusted through 180°. A lifting eye is provided for hoisting the fan from one location to another with a crane hook.
### Performance Data

#### Steeler Mancooler

<table>
<thead>
<tr>
<th>SIZE</th>
<th>CATALOG NUMBER</th>
<th>CFM**</th>
</tr>
</thead>
<tbody>
<tr>
<td>24&quot;</td>
<td>24L230 STL</td>
<td>1750</td>
</tr>
<tr>
<td>24&quot;</td>
<td>24L426 STL</td>
<td>1750</td>
</tr>
<tr>
<td>30&quot;</td>
<td>30L230 STL</td>
<td>1160</td>
</tr>
<tr>
<td>30&quot;</td>
<td>30L428 STL</td>
<td>1160</td>
</tr>
<tr>
<td>36&quot;</td>
<td>36L218 STL</td>
<td>1160</td>
</tr>
<tr>
<td>42&quot;</td>
<td>42L218 STL</td>
<td>1750</td>
</tr>
</tbody>
</table>

### Typical Specifications

**CONSTRUCTION** — Macheta® Airfoil Mancoolers, where indicated on drawings and schedules, shall be direct drive. Mancoolers shall be manufactured by Aerovent, Minneapolis, Minnesota, and shall be of the size and capacity as indicated in the fan schedule. Macheta® Airfoil Mancoolers shall be tested and rated in accordance with industry test codes and are guaranteed by the manufacturer to deliver at the rated published performance levels. In addition, each unit shall be run tested prior to shipment. Fan housing shall be rolled and flanged from heavy-gauge steel with a continuous welded seam. Standard units are supported on a heavy duty tubular base with reinforcing gussets and mounting pads. OSHA type guards, front and rear, shall be bolted to the fan housing. Unit shall have provisions for locking wheels, wall mount, column mount or stationary mount.

**PROPELLERS** — Precision Macheta® tipped airfoil propellers shall be of A319 cast aluminum. The propeller shall be secured to the motor shaft with knurled cup point setscrews on size 16" and split taper lock bushings on sizes 18" and larger.

**BALANCING** — The propeller assembly shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. In addition, direct drive fan propellers shall be balanced on the motor shaft after final assembly in the fan casing, in the manufacturing facility, to the following peak velocity values, filter-in, at the fan test speed:

<table>
<thead>
<tr>
<th>Fan Application Category</th>
<th>Rigidly Mounted (in./s)</th>
<th>Flexibly Mounted (in./s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BV-3</td>
<td>0.15</td>
<td>0.20</td>
</tr>
</tbody>
</table>

**MOTORS** — Fan motors shall be foot mounted NEMA Design B, standard industrial continuous duty, ball bearing (ODP, TEAO, TEFN, FCXP) variable torque type suitable for operation on voltage, phase and hertz, as listed in the fan schedule.

**FINISH** — The unit, after fabrication, shall be cleaned and chemically pretreated by a phosphatizing process and shall be painted inside and outside with an air dry enamel.

**ACCESSORIES** — Unit shall be complete with: Locking Wheels (UM Mancoolers only)
Model UM | Utility Mancooler

Optional locking wheels shown.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>L</th>
<th>GA.</th>
<th>Max Motor Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>19</td>
<td>16¼</td>
<td>21½</td>
<td>21½</td>
<td>15¼</td>
<td>25¼</td>
<td>15</td>
<td>0.105</td>
<td>56</td>
</tr>
<tr>
<td>18</td>
<td>21</td>
<td>18¼</td>
<td>21½</td>
<td>23¼</td>
<td>15¼</td>
<td>26¼</td>
<td>15</td>
<td>0.105</td>
<td>56</td>
</tr>
<tr>
<td>21</td>
<td>24</td>
<td>21¼</td>
<td>21½</td>
<td>26½</td>
<td>15¼</td>
<td>27½</td>
<td>15</td>
<td>0.105</td>
<td>143T</td>
</tr>
<tr>
<td>24</td>
<td>27</td>
<td>24½</td>
<td>32</td>
<td>30½</td>
<td>22</td>
<td>35½</td>
<td>18</td>
<td>0.105</td>
<td>143T</td>
</tr>
<tr>
<td>27</td>
<td>30½</td>
<td>27½</td>
<td>32</td>
<td>33½</td>
<td>22</td>
<td>37½</td>
<td>18</td>
<td>0.105</td>
<td>143T</td>
</tr>
<tr>
<td>30</td>
<td>33½</td>
<td>30½</td>
<td>32</td>
<td>36½</td>
<td>22</td>
<td>38½</td>
<td>24</td>
<td>0.105</td>
<td>146T</td>
</tr>
<tr>
<td>32</td>
<td>35½</td>
<td>32½</td>
<td>32</td>
<td>38½</td>
<td>22</td>
<td>39½</td>
<td>24</td>
<td>0.105</td>
<td>146T</td>
</tr>
<tr>
<td>36</td>
<td>39½</td>
<td>36½</td>
<td>44</td>
<td>42½</td>
<td>28</td>
<td>47½</td>
<td>26</td>
<td>0.105</td>
<td>184T</td>
</tr>
<tr>
<td>42</td>
<td>46</td>
<td>42½</td>
<td>44</td>
<td>49</td>
<td>28</td>
<td>51</td>
<td>26</td>
<td>0.135</td>
<td>254T</td>
</tr>
</tbody>
</table>

Dimensions are in inches unless otherwise noted.
Dimensions are not to be used for construction.
Model PUM | Pedestal Mount Mancooler

This unit is designed to rotate and pivot 360°.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>H</th>
<th>L</th>
<th>W</th>
<th>GA</th>
<th>Max Motor Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>19</td>
<td>21</td>
<td>16 1/4</td>
<td>30 1/2</td>
<td>15</td>
<td>23 1/4</td>
<td>0.105</td>
<td>56</td>
</tr>
<tr>
<td>18</td>
<td>21</td>
<td>22</td>
<td>18 1/4</td>
<td>32 1/2</td>
<td>15</td>
<td>25 1/2</td>
<td>0.105</td>
<td>56</td>
</tr>
<tr>
<td>21</td>
<td>24</td>
<td>24</td>
<td>21 1/4</td>
<td>36</td>
<td>15</td>
<td>28 1/4</td>
<td>0.105</td>
<td>143T</td>
</tr>
<tr>
<td>24</td>
<td>27</td>
<td>25</td>
<td>24 1/4</td>
<td>38 1/2</td>
<td>18</td>
<td>31 1/2</td>
<td>0.105</td>
<td>143T</td>
</tr>
<tr>
<td>27</td>
<td>30 1/4</td>
<td>27</td>
<td>27 1/4</td>
<td>42 1/2</td>
<td>18</td>
<td>34 1/2</td>
<td>0.105</td>
<td>143T</td>
</tr>
<tr>
<td>30</td>
<td>33 1/4</td>
<td>29</td>
<td>30 1/4</td>
<td>45 1/2</td>
<td>24</td>
<td>37 1/2</td>
<td>0.105</td>
<td>145T</td>
</tr>
<tr>
<td>32</td>
<td>35 1/2</td>
<td>30</td>
<td>32 1/2</td>
<td>47 1/2</td>
<td>24</td>
<td>41 1/2</td>
<td>0.105</td>
<td>145T</td>
</tr>
<tr>
<td>36</td>
<td>39 1/2</td>
<td>32</td>
<td>36 1/2</td>
<td>51 1/2</td>
<td>26</td>
<td>45 1/2</td>
<td>0.105</td>
<td>184T</td>
</tr>
<tr>
<td>42</td>
<td>46</td>
<td>35</td>
<td>42 1/2</td>
<td>58</td>
<td>26</td>
<td>51 1/2</td>
<td>0.135</td>
<td>254T</td>
</tr>
</tbody>
</table>

Dimensions are in inches unless otherwise noted.
Dimensions are not to be used for construction.

R11193D
Model STL | Steeler Mancooler

Heavy-Duty Expanded Metal Wire Guard Front & Rear

Dimensions are not to be used for construction.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>L</th>
<th>ANGLE RING</th>
<th>GA.</th>
<th>Max Motor Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>27</td>
<td>24 1/4</td>
<td>41 1/4</td>
<td>38 3/4</td>
<td>36</td>
<td>59 1/4</td>
<td>20 1/2</td>
<td>1 1/4 x 1 1/4 x 1/8</td>
<td>0.105</td>
<td>145T</td>
</tr>
<tr>
<td>30</td>
<td>33 1/4</td>
<td>30%</td>
<td>47 1/4</td>
<td>38 3/4</td>
<td>42</td>
<td>68 1/2</td>
<td>27</td>
<td>1 1/2 x 1 1/2 x 1/4</td>
<td>0.105</td>
<td>145T</td>
</tr>
<tr>
<td>36</td>
<td>39 1/4</td>
<td>36 1/4</td>
<td>53%</td>
<td>38 3/4</td>
<td>42</td>
<td>71 1/4</td>
<td>27</td>
<td>1 1/2 x 1 1/2 x 3/16</td>
<td>0.135</td>
<td>184T</td>
</tr>
<tr>
<td>42</td>
<td>45 1/4</td>
<td>42%</td>
<td>59%</td>
<td>40 1/4</td>
<td>48</td>
<td>80%</td>
<td>29</td>
<td>1 1/2 x 1 1/2 x 3/4</td>
<td>0.135</td>
<td>254T</td>
</tr>
<tr>
<td>48</td>
<td>52</td>
<td>48%</td>
<td>65%</td>
<td>44 1/4</td>
<td>48</td>
<td>83 1/4</td>
<td>33</td>
<td>1 1/2 x 1 1/2 x 3/4</td>
<td>0.179</td>
<td>256T</td>
</tr>
</tbody>
</table>

Dimensions are in inches unless otherwise noted.
Dimensions are not to be used for construction.
Model 39 | Mancooler

Dimensions are in inches unless otherwise noted.
Dimensions are not to be used for construction.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>C</th>
<th>E</th>
<th>G</th>
<th>L</th>
<th>GA.</th>
<th>Max Motor Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>33</td>
<td>24½</td>
<td>40½</td>
<td>41½</td>
<td>18</td>
<td>0.105</td>
<td>143T</td>
</tr>
<tr>
<td>27</td>
<td>35½</td>
<td>27½</td>
<td>40½</td>
<td>41½</td>
<td>18</td>
<td>0.105</td>
<td>143T</td>
</tr>
<tr>
<td>30</td>
<td>39</td>
<td>30½</td>
<td>40½</td>
<td>41½</td>
<td>24</td>
<td>0.105</td>
<td>145T</td>
</tr>
<tr>
<td>32</td>
<td>41½</td>
<td>32½</td>
<td>40½</td>
<td>41½</td>
<td>24</td>
<td>0.105</td>
<td>145T</td>
</tr>
<tr>
<td>36</td>
<td>45</td>
<td>36½</td>
<td>40½</td>
<td>41½</td>
<td>26</td>
<td>0.105</td>
<td>184T</td>
</tr>
<tr>
<td>42</td>
<td>51½</td>
<td>42½</td>
<td>40½</td>
<td>41½</td>
<td>26</td>
<td>0.135</td>
<td>254T</td>
</tr>
</tbody>
</table>

©2013 Aerovent, Minneapolis, MN. All rights reserved. Catalog illustrations cover the general appearance of Aerovent products at the time of publication and we reserve the right to make changes in design and construction at any time without notice.