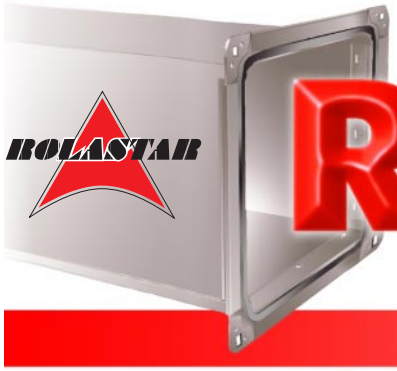

DUCTING UPDATE BY ROLASTAR®

FOR THE HVAC INDUSTRY

BULLETIN I 7th October 2002

The Rolamate system of joining duct sections, using only four corner bolts, was specially developed for the HVAC market in India by Rolastar in early 2002. It replaces the old, laborious method of using heavy angle iron flanges and felt gaskets to join duct sections. An eight page brochure describing the Rolamate system, in detail, is available from Rolastar Private Ltd.'s office in Mumbai.

This bulletin furnishes some clarifications and additions to the details given in the Rolamate brochure and will help the installer.

1 Cutting Rolamate slip-on flanges

Cut the Rolamate slip-on flange, using the outside duct dimensions in millimeters, and deducting the lengths given in the table below:

Type of Flange	Cutting Length in mm
ROLAMATE F	X - 36
ROLAMATE H or I	X - 39

Where X is the outside duct dimensions in mm's

Rolamate specifications (based on SMACNA 1" wg or 250 pa)

ROLAMATE F is suitable for all duct sizes upto 1200mm ROLAMATE H is suitable for all duct sizes upto 1201mm ROLAMATE I is suitable for duct sizes between 1801 to 2100mm

2 Fastening of Rolamate Frame Section

After mounting, fastenthe frame to the duct section using "pop" rivets (also called "blind" rivets). Commence fastening from one corner and proceed around the duct in one direction.

Locate the first fastener within 20mm from each end of the flange and distribute the pitch between fasteners evenly.

- for duct sizes below 300mm apply two fasteners per side
- for duct sizes 300mm and above apply at least three fasteners per side
- for pitch spacing follow the table below :

Pressure Class	Pitch Spacing
Upto 750 pa (3" wg)	250 - 300mm
Above 750 pa	150 - 200mm

Recommended pop rivet size is 4mm dia (5/32") x 9.5mm long (3/8"). The drill bit size suitable for these rivets is 4.10 OR 4.2mm.

always use a sharp drill bit for easy drilling and enhanced productivity.

Rolastar factory can supply pop rivets, upon request, at extra cost.

3 Cleat Installation

The Rolamate metal cleat is snapped OR driven on to the mating flanges and must be crimped using a special crimping tool available from the Rolastar factory.

Cleats should be spaced so that the cleat end is within 150mm (6") of each companion flange end and the pitch between cleats is as per the pressure class given below:

Pressure Class	Pitch Spacing
Upto 750 pa (3" wg)	300mm
Above 750 pa	150mm

4 Special Tools for Fast Assembly

The following tools can be effectively used to speed up the installation of the Rolamate system and all these tools are available from the Rolastar factory, upon request, at extra cost.

- **Ratchet spanner,**

  with a number 13 and 17 head (use of this tool helps to tighten the nut very fast using only one hand - see sketch 1)

- **C-Jaw vice-grip clamp**

  (While drilling holes for the pop-rivets the clamp holds the Rolamate flange tight with the duct and also helps to hold two duct sections together while tightening the 4 bolts of the flange - see sketch 2)

- **Crimping Tool**

  (A "must-have"tool for crimping cleats to the mating flanges - see sketch 3)

5 Flanged Nut

This is a combination nut and washer in one piece, adding larger bearing area to the nut and eliminating the need for a separate washer. Small features like this help increase productivity in the field and is now available as a standard item from the Rolastar factory.

Next issue of Ducting Update will describe a new hoisting system developed by Rolastar.

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