

## Technical data sheet

**SIMPSON**

**Strong-Tie**

JHM

### Joist Hanger for Masonry

*The JHM and JHMI range of joist hangers can be used to connect solid sawn joists, trusses and engineered joists to masonry walls or steel beams.*

CE



## Features

### Material

- Pre-galvanised mild steel

### Benefits

- Built-in inspection slot at the base of the hanger to aid inspection from the ground
- Top flange provides widest area in contact with masonry support allowing superior performance.
- Embossments on JHM stiffen top flange and holes allow improved mortar keying.
- JHM side flange on deeper hangers is much higher than traditional style, providing greatly enhanced resistance to joist rotation.

JHM

**Joist Hanger for Masonry**

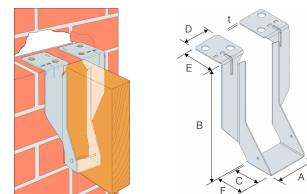
# Technical Data

# Technical data sheet

## JHM Joist Hanger for Masonry



### Product Dimensions



| References | Joist dimensions [mm] |        | Hanger Dimensions [mm] |     |    |    |    |    |   | Joist holes |  |
|------------|-----------------------|--------|------------------------|-----|----|----|----|----|---|-------------|--|
|            | Width                 | Height | A                      | B   | C  | D  | E  | F  | t | Ø4          |  |
| JHM100/38  | 35                    | 100    | 38                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM125/38  | 35                    | 125    | 38                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM150/38  | 35                    | 150    | 38                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM175/38  | 35                    | 175    | 38                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM200/38  | 35                    | 200    | 38                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM225/38  | 35                    | 225    | 38                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM250/38  | 35                    | 250    | 38                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM300/38  | 35                    | 300    | 38                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM100/44  | 44                    | 100    | 44                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM125/44  | 44                    | 125    | 44                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM150/44  | 44                    | 150    | 44                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM175/44  | 44                    | 175    | 44                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM200/44  | 44                    | 200    | 44                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM225/44  | 44                    | 225    | 44                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM250/44  | 44                    | 250    | 44                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM300/44  | 44                    | 300    | 44                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM100/47  | 47                    | 100    | 47                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM125/47  | 47                    | 125    | 47                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM150/47  | 47                    | 150    | 47                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM175/47  | 47                    | 175    | 47                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM200/47  | 47                    | 200    | 47                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM225/47  | 47                    | 225    | 47                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM250/47  | 47                    | 250    | 47                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM300/47  | 47                    | 300    | 47                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM100/50  | 50                    | 100    | 50                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM125/50  | 50                    | 125    | 50                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM150/50  | 50                    | 150    | 50                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM175/50  | 50                    | 175    | 50                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM200/50  | 50                    | 200    | 50                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM225/50  | 50                    | 225    | 50                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM250/50  | 50                    | 250    | 50                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM300/50  | 50                    | 300    | 50                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM100/63  | 63                    | 100    | 63                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM125/63  | 63                    | 125    | 63                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM150/63  | 63                    | 150    | 63                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM175/63  | 63                    | 175    | 63                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM200/63  | 63                    | 200    | 63                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM225/63  | 63                    | 225    | 63                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM250/63  | 63                    | 250    | 63                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM300/63  | 63                    | 300    | 63                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM100/75  | 2x35 or 75            | 100    | 75                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM125/75  | 2x35 or 75            | 125    | 75                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM150/75  | 2x35 or 75            | 150    | 75                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |  |
| JHM175/75  | 2x35 or 75            | 175    | 75                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |  |

# Technical data sheet

## JHM Joist Hanger for Masonry



| References | Joist dimensions [mm] |        | Hanger Dimensions [mm] |     |    |    |    |    |   | Joist holes |
|------------|-----------------------|--------|------------------------|-----|----|----|----|----|---|-------------|
|            | Width                 | Height | A                      | B   | C  | D  | E  | F  | t | Ø4          |
| JHM200/75  | 2x35 or 75            | 200    | 75                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/75  | 2x35 or 75            | 225    | 75                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/75  | 2x35 or 75            | 250    | 75                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/75  | 2x35 or 75            | 300    | 75                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/91  | 2x44 or 91            | 100    | 91                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/91  | 2x44 or 91            | 125    | 91                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/91  | 2x44 or 91            | 150    | 91                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/91  | 2x44 or 91            | 175    | 91                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/91  | 2x44 or 91            | 200    | 91                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/91  | 2x44 or 91            | 225    | 91                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/91  | 2x44 or 91            | 250    | 91                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/91  | 2x44 or 91            | 300    | 91                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/96  | 2x47 or 96            | 100    | 96                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/96  | 2x47 or 96            | 125    | 96                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/96  | 2x47 or 96            | 150    | 96                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/96  | 2x47 or 96            | 175    | 96                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/96  | 2x47 or 96            | 200    | 96                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/96  | 2x47 or 96            | 225    | 96                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/96  | 2x47 or 96            | 250    | 96                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/96  | 2x47 or 96            | 300    | 96                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/99  | 99                    | 100    | 99                     | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/99  | 99                    | 125    | 99                     | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/99  | 99                    | 150    | 99                     | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/99  | 99                    | 175    | 99                     | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/99  | 99                    | 200    | 99                     | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/99  | 99                    | 225    | 99                     | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/99  | 99                    | 250    | 99                     | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/99  | 99                    | 300    | 99                     | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/116 | 2x56 or 115           | 100    | 116                    | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/116 | 2x56 or 115           | 125    | 116                    | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/116 | 2x56 or 115           | 150    | 116                    | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/116 | 2x56 or 115           | 175    | 116                    | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/116 | 2x56 or 115           | 200    | 116                    | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/116 | 2x56 or 115           | 225    | 116                    | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/116 | 2x56 or 115           | 250    | 116                    | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/116 | 2x56 or 115           | 300    | 116                    | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/125 | 2x63                  | 100    | 125                    | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/125 | 2x63                  | 125    | 125                    | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/125 | 2x63                  | 150    | 125                    | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/125 | 2x63                  | 175    | 125                    | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/125 | 2x63                  | 200    | 125                    | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/125 | 2x63                  | 225    | 125                    | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/125 | 2x63                  | 250    | 125                    | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/125 | 2x63                  | 300    | 125                    | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/135 | 3x45                  | 100    | 135                    | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/135 | 3x45                  | 125    | 135                    | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/135 | 3x45                  | 150    | 135                    | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/135 | 3x45                  | 175    | 135                    | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/135 | 3x45                  | 200    | 135                    | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/135 | 3x45                  | 225    | 135                    | 215 | 64 | 64 | 75 | 75 | 2 | 2           |

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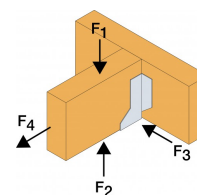
**SIMPSON**

**Strong-Tie**

JHM

**Joist Hanger for Masonry**

| References | Joist dimensions [mm] |        | Hanger Dimensions [mm] |     |    |    |    |    |   | Joist holes |
|------------|-----------------------|--------|------------------------|-----|----|----|----|----|---|-------------|
|            | Width                 | Height | A                      | B   | C  | D  | E  | F  | t | Ø4          |
| JHM250/135 | 3x45                  | 250    | 135                    | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/135 | 3x45                  | 300    | 135                    | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/142 | 2x70                  | 100    | 142                    | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/142 | 2x70                  | 125    | 142                    | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/142 | 2x70                  | 150    | 142                    | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/142 | 2x70                  | 175    | 142                    | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/142 | 2x70                  | 200    | 142                    | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/142 | 2x70                  | 225    | 142                    | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/142 | 2x70                  | 250    | 142                    | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/142 | 2x70                  | 300    | 142                    | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/146 | 2x72                  | 100    | 146                    | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/146 | 2x72                  | 125    | 146                    | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/146 | 2x72                  | 150    | 146                    | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/146 | 2x72                  | 175    | 146                    | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/146 | 2x72                  | 200    | 146                    | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/146 | 2x72                  | 225    | 146                    | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/146 | 2x72                  | 250    | 146                    | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/146 | 2x72                  | 300    | 146                    | 290 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM100/150 | 3x50 or 2x75          | 100    | 150                    | 100 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM125/150 | 3x50 or 2x75          | 125    | 150                    | 125 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM150/150 | 3x50 or 2x75          | 150    | 150                    | 140 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM175/150 | 3x50 or 2x75          | 175    | 150                    | 165 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM200/150 | 3x50 or 2x75          | 200    | 150                    | 190 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM225/150 | 3x50 or 2x75          | 225    | 150                    | 215 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM250/150 | 3x50 or 2x75          | 250    | 150                    | 240 | 64 | 64 | 75 | 75 | 2 | 2           |
| JHM300/150 | 3x50 or 2x75          | 300    | 150                    | 290 | 64 | 64 | 75 | 75 | 2 | 2           |



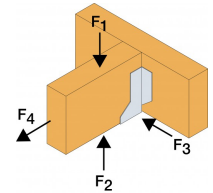
Product Performance - Masonry

| References | Joist Fasteners |          | Characteristic Capacity [kN]   |                                |                                |           | Safe Working Loads [kN]        |                                |                                |                         |
|------------|-----------------|----------|--------------------------------|--------------------------------|--------------------------------|-----------|--------------------------------|--------------------------------|--------------------------------|-------------------------|
|            | Qty             | Type     | $R_{1,k}$                      |                                |                                | $R_{2,k}$ | $R_{1,SWL}$                    |                                |                                | $R_{2,SWL, Short Term}$ |
|            |                 |          | 2.8N/mm <sup>2</sup> Solid AAC | 3.5N/mm <sup>2</sup> Solid LAC | 7.0N/mm <sup>2</sup> Solid DAC |           | 2.8N/mm <sup>2</sup> Solid AAC | 3.5N/mm <sup>2</sup> Solid LAC | 7.0N/mm <sup>2</sup> Solid DAC |                         |
| JHM        | 2               | N3.75x30 | 10.5                           | 12.8                           | 20                             | 1.8       | 5.2                            | 6.4                            | 10                             | 1                       |

# Technical data sheet



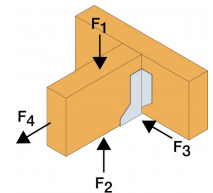
## JHM Joist Hanger for Masonry



### Product Performance - Masonry & Skewed

| References | Joist Fasteners |         | Safe Working Loads [kN]        |                                |                                |                        |
|------------|-----------------|---------|--------------------------------|--------------------------------|--------------------------------|------------------------|
|            | Qty             | Type    | $R_{1,SWL}$                    |                                |                                | $R_{2,SWL,Short Term}$ |
|            |                 |         | 2.8N/mm <sup>2</sup> Solid AAC | 3.5N/mm <sup>2</sup> Solid LAC | 7.0N/mm <sup>2</sup> Solid DAC |                        |
| Spec JHMSK | 4               | 3.75x30 | 5.1                            | 5.2                            | 5.2                            | 1                      |

1. Maximum skew 45°



### Product Performance - Shot fired to Steel Girder

| References | Number of Fasteners |                |       |          | Safe Working Loads [kN]      |
|------------|---------------------|----------------|-------|----------|------------------------------|
|            | Header              |                | Joist |          |                              |
|            | Qty                 | Type           | Qty   | Type     | R <sub>1,SWL,Long Term</sub> |
| JHM        | 4                   | Shot fire pins | 2     | N3.75x30 | 5.1                          |

1.The above Safe Working Loads are based upon product tests using four No. Hilti 12mm X-EDNI steel pins fired through the top flange material, onto a minimum 4mm thick steel plate. Other pins may be used provided similar structural performance is verified by the pin manufacturer. Pin Head size must be sufficient to prevent pull through during loading.

2.The designer must ensure that the steel support member will support the imposed loads.

3.Install shot-fired pins in accordance with manufacturer’s instructions

### Product Performance - Mechanically Fixed to Steel Beam

| References | Number of Fasteners |             |       |          | Safe Working Loads     | Characteristic Load [kN] |
|------------|---------------------|-------------|-------|----------|------------------------|--------------------------|
|            | Header              |             | Joist |          | $R_{1,SWL, Long Term}$ | $R_{1,k}$                |
|            | Qty                 | Type        | Qty   | Type     |                        |                          |
| JHM        | 2                   | XLQ114B1224 | 2     | N3.75x30 | 10.8                   | 19                       |

- The designer / engineer must ensure that the steel support can take the imposed loads
- Suitable for Steel I-beams and Hollow Sections upto 12.5mm thick
- Timber is required in the web of steel I-beam when the hanger depth is less than the steel depth.

Timber must finish flush with outer edges of steel I-beam

| Fastener Reference | Length [mm] | Hex Head [in] | Washer Diameter [mm] | Shank Diameter [mm] | Suitable Material Thickness [mm] | Recommended Install Speed [rpm] |
|--------------------|-------------|---------------|----------------------|---------------------|----------------------------------|---------------------------------|
| XLQ114B1224        | 32          | 5/16"         | 16                   | 5.5                 | 3.5 - 12.5                       | 1400                            |

JHM

**Joist Hanger for Masonry**

## Installation

### Installation

#### Standard Masonry Installation

- Use all specified fasteners. See "General Notes".
- Set hanger back flange tight against block wall when built to desired level, then continue with additional courses to complete wall height. Joist should be tight into back of hanger when possible. Maximum gap permitted is 6mm.
- MINIMUM 3 COURSES OF SOLID BLOCK (675MM MASONRY) REQUIRED ABOVE HANGER WITH MORTAR FULLY CURED BEFORE APPLYING LOAD.
- Do not stack blocks or heavy loads on the joists during construction unless the joists have additional support to take the full load of the blocks vertically and horizontally.

#### Fixed to Steel Beams

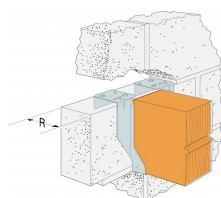
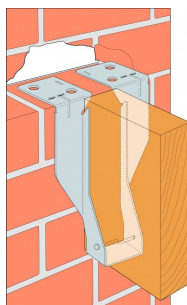
- The JHM range can be mechanically fixed to steel beams of thicknesses up to 12.5mm.
- Timber is required in the web of the 'I' section steel beam when the hanger depth is less than the steel depth.
- Timber must be flush with the outer edges of the 'I' section steel beam.
- The shot-fired pins must be installed by a qualified person in accordance with the manufacturer's installation requirements.

## JHM Joist Hanger for Masonry

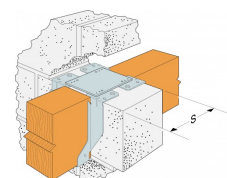
### Options

#### Options

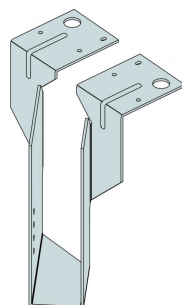
- Return configuration provides additional support by wrapping around three sides of the block. Designate "return" and length of return dimensions when ordering.
- JHM, JHMR OR JHMS HANGERS DO NOT SATISFY THE REQUIREMENTS FOR LATERAL RESTRAINT TYPE HANGERS UNLESS STRAPS ARE FITTED.
- Straddle configuration provides two hangers connected across top of support enabling exact alignment on both sides of supporting wall. Designate "straddle" and length of straddle dimensions when ordering.
- Other widths and heights available to order. Contact Simpson Strong-Tie® for details.
- SPEC JHM's up to 61mm width can be skewed from 5 to 45 deg. See skewed hanger load table.



*JHMR Return Configuration*



*JHMS Straddle Configuration*



*SPEC JHMSK Skewable Option*

