



R·M·D  
KWIKFORM

# RAPIDSHOR



people make the difference

RMD Kwikform is a powerful team comprising the skills, experience and energy of over 1,000 men and women in 16 countries. Totally diverse in nationality, culture, language and background. Totally united in the pursuit of customer satisfaction.



## rapidshor, our experience and expertise

Rapidshor is a cost effective modular steel shoring system from RMD Kwikform.

Developed with an extensive range of accessories, its robust galvanised design and ease of assembly has made Rapidshor the premier choice in modular shoring.

It's the result of over 60 years experience gained on major projects throughout the world. What's more, our network of local branches means when you deal with RMD Kwikform, you talk to people who understand the working environment, technical difficulties and challenges you face.

**Client:** Highways Agency.  
**Contractor:** CSM Joint Venture.  
**Designer:** W.S. Atkins.  
**Project:** A2/M2, Medway Viaduct, Kent, UK.



**Client:** Ramco Construction  
**Project:** Cocodo to Khaldeh Highway, Beirut, Lebanon



**Client:** Tarmac HBM JV  
**Project:** Immersed Tube Tunnel, Kent, UK



**Client:** Entreprise Spie Batignolles  
**Project:** Lille Metro, France







**Client:**  
Asea Brown Boveri

**Project:**  
Collie Power  
Station, North  
Australia



## some of our applications

Rapidshor's modular bay sizes, wedge fixings and snap on braces make it highly cost effective for:

- Bridge decks
- Viaducts
- Commercial / retail buildings
- Culverts
- Tunnels
- Turbine pedestals
- Reservoirs
- Loading platforms



**Client:**  
Meriton  
Apartments  
Pty Ltd

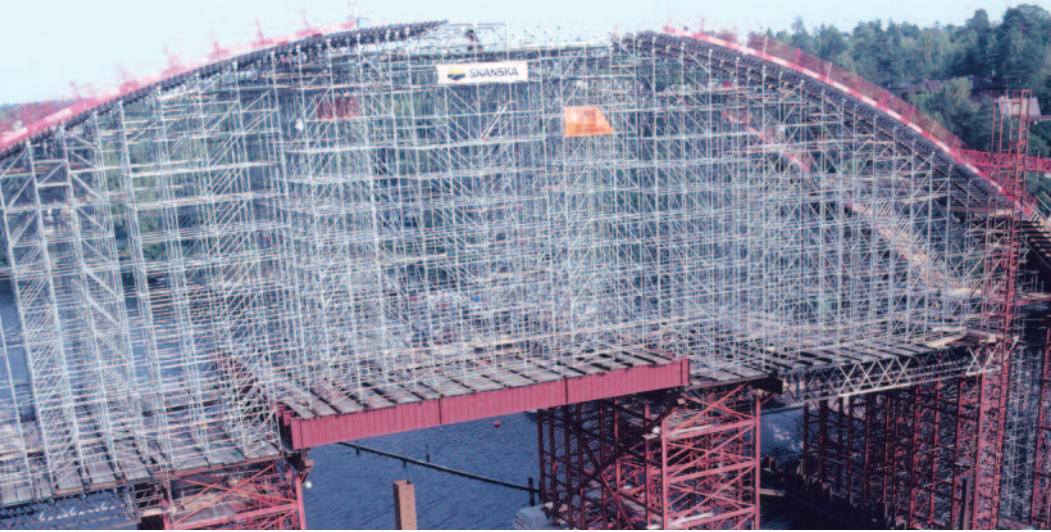
**Project:**  
The Bondi  
Junction Plaza,  
Australia



**Client:**  
Heab for  
Vägverket  
Produktion

**Project:**  
Malmö  
Ring Road,  
Sweden





**Client:**  
Skanska

**Project:**  
Staket Bridge,  
Stockholm, Sweden

## features and benefits

■ High leg capacity up to 80kN **saves material and labour costs, with reductions in the number of foundations and formwork primary beams.**

■ A modular system which is easy and quick to erect, accommodating sloping ground and varying slab levels, with regular patterns of snap on braces **reducing both erection and inspection costs and compressing site programme.**

■ Galvanised finish – eliminates corrosion, **minimises maintenance and extends the lifetime integrity of the system**

■ Tilting head and bases - **eliminates the need for use of timber wedges to overcome sloping ground and elevated slabs**

**Client:**  
SLF Engineering

**Project:**  
2nd North-South  
Freeway, Taichung,  
Taiwan



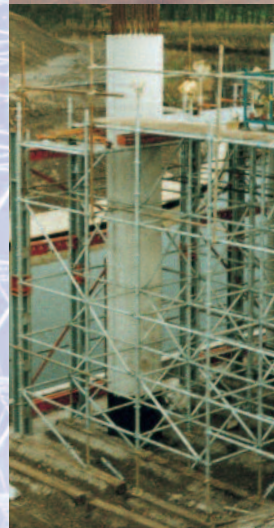
**Client:**  
Oak Park  
Construction

**Project:**  
Fountain Gate,  
Melbourne,  
Australia



**Client:**  
Wimpey Engineering  
& Construction

**Project:**  
M77, Scotland, UK



**Client:**  
L.G. Construction

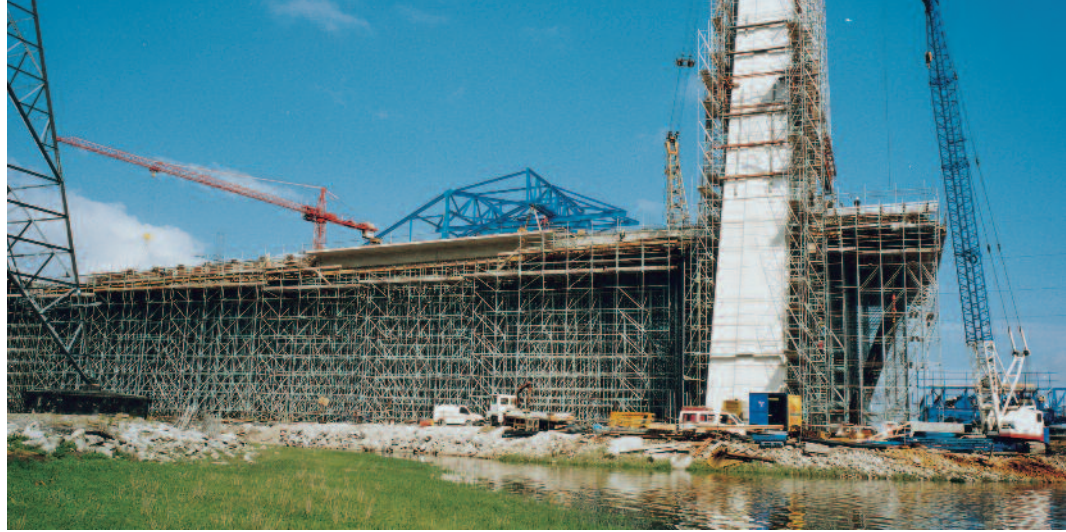
**Project:**  
Kumi LCD  
Korea





**Client:**  
Northwest Holst/  
Kier Construction/  
Campeon Bernard  
SGE Joint Venture

**Project:**  
Deeside River Crossing,  
North Wales, UK



60.3mm dia high grade steel standards and 48mm diameter jacks **increase the strength to weight ratio and allow greater jack extensions without bracing.**

**Cost savings obtained from a reduction in the two main cost elements of a shoring system - materials and labour.** This is realised by the reduced weight of equipment and fewer number of components.

**Equipment necessary to support a flat slab 350mm thick, 18m x 15m on plan and 5.1m high**

**Comparison of 4 systems**

| Component                      | 40kN Modular System | 64kN Modular System | 45kN Frame System | Rapidshor 80kN Modular System |
|--------------------------------|---------------------|---------------------|-------------------|-------------------------------|
| Head Jacks                     | 99                  | 72                  | 80                | 56                            |
| Base Jacks                     | 99                  | 72                  | 80                | 56                            |
| Standards                      | 198                 | 144                 | -                 | 112                           |
| Ledgers                        | 632                 | 440                 | -                 | 246                           |
| Braces                         | 120                 | 102                 | -                 | 60                            |
| Jack Braces                    | 80                  | 68                  | -                 | 60                            |
| Frames                         | -                   | -                   | 120               | -                             |
| Spigots                        | -                   | -                   | 160               | -                             |
| Cross Braces                   | -                   | -                   | 105               | -                             |
| Scaffold tubes                 | -                   | -                   | 100x6m            | -                             |
| Scaffold Couplers              | -                   | -                   | 320               | -                             |
| Total Number of Components     | 1228                | 898                 | 965               | 590                           |
| Estimated Weight of Components | 9700Kg              | 8450Kg              | 9560Kg            | 6200Kg                        |





**retail**

**Client:**  
Construction De Mussy

**Project:**  
Supermercado Ekono San Bernardo, Santiago, Chile

## applications and features

RMD Kwikform is involved in as many as 2,000 live projects around the world at any given time, and Rapidshor shoring is a crucial element in many of the applications. This volume of use and the diversity of projects concerned has allowed us to refine and develop Rapidshor based on real world, on-site experience.



**tunnels**

**Client:**  
Kier-Sun Fook Kang JV

**Project:**  
Central Subway Project, Hong Kong



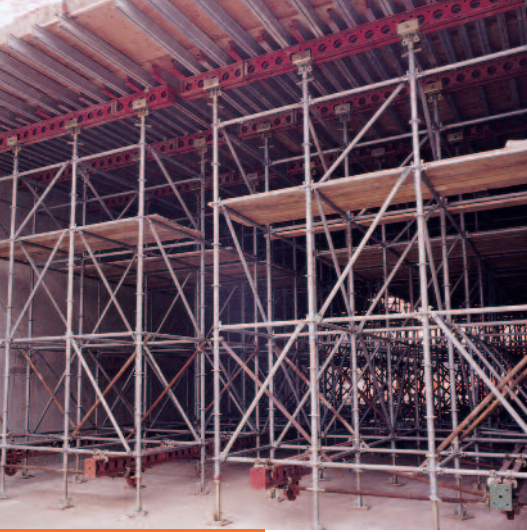
**viaducts**

**Client:**  
Comet Group

**Project:**  
Copenhagen Metro Viaduct Support, Denmark







### box culverts

Client:  
AMEC-Tarmac JV

Project:  
A538 Tunnel, Manchester  
Airport, UK



### bridges

Client:  
Zuben-Stecon-W&F JV

Project:  
Krunsthep Bridge,  
Thailand

The versatility of Rapidshor and its highly developed key components allows us to design solutions for a wide variety of applications. Rapidshor can be used with either RMD Kwikform products or combined with the customer's own soffit formwork to provide a tailor made solution.



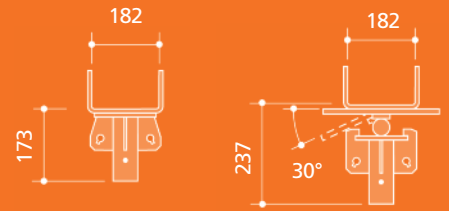
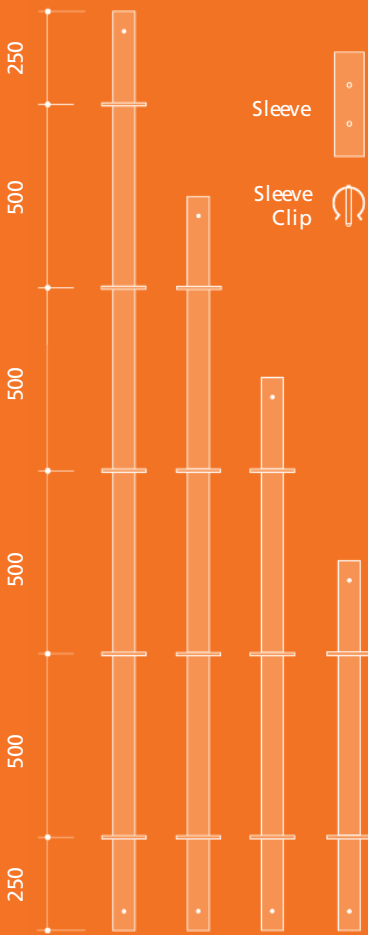
### industrial

Client:  
Holland Ballast-Thies JV

Project:  
Musi Pulp Mill Project,  
Sumatra, Indonesia







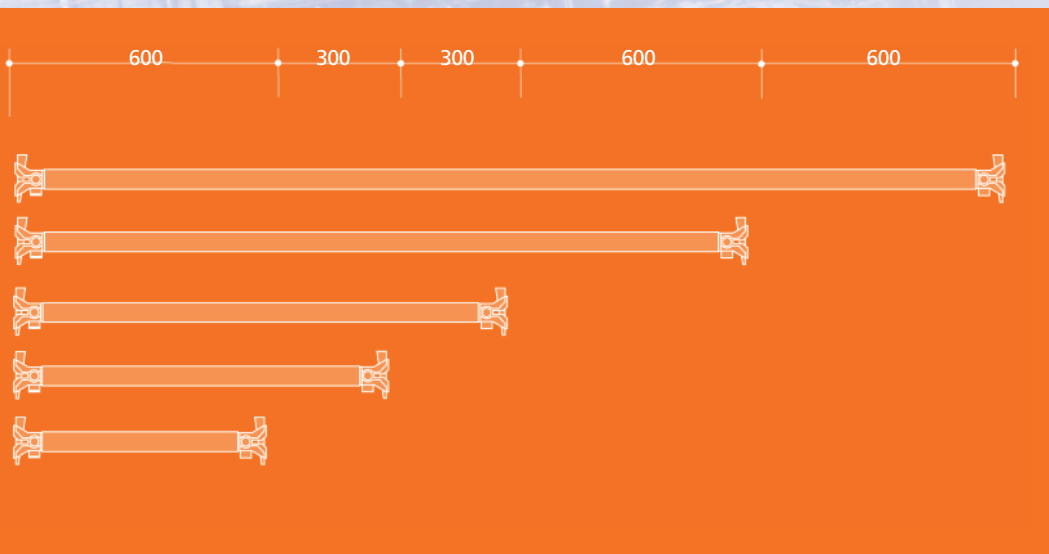
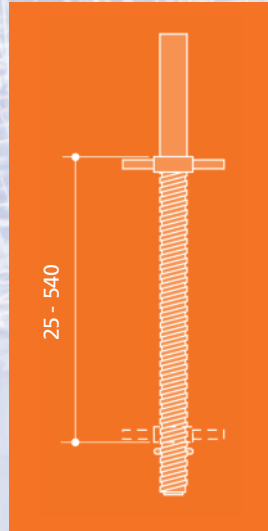
### Rapidshor Heads

| Code     | Description                       | Wt. (Kg) |
|----------|-----------------------------------|----------|
| RSX10003 | Rapidshor Brace U-Head 182mm wide | 6.65     |
| RSX10007 | Rapidshor Tilt Head 182mm wide    | 13.08    |
| RSX10001 | Rapidshor U-Plate 220mm wide      | 5.73     |



### Standards

| Code     | Description                  | Wt. (Kg) |
|----------|------------------------------|----------|
| RSX41000 | Rapidshor Standard OE 1000mm | 5.39     |
| RSX41500 | Rapidshor Standard OE 1500mm | 8.02     |
| RSX42000 | Rapidshor Standard OE 2000mm | 10.78    |
| RSX42500 | Rapidshor Standard OE 2500mm | 13.47    |
| RSX10005 | Rapidshor Joint Sleeve 300mm | 1.53     |
| RSX10010 | Rapidshor Base Sleeve 216mm  | 1.1      |
| RSX10009 | Rapidshor Sleeve Clip        | 0.09     |



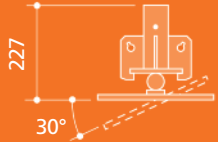
### Ledgers

| Code     | Description             | Wt. (Kg) |
|----------|-------------------------|----------|
| RSX22400 | Rapidshor Ledger 2400mm | 9.63     |
| RSX21800 | Rapidshor Ledger 1800mm | 7.49     |
| RSX21500 | Rapidshor Ledger 1500mm | 6.30     |
| RSX21200 | Rapidshor Ledger 1200mm | 5.36     |
| RSX20900 | Rapidshor Ledger 900mm  | 4.29     |
| RSX20600 | Rapidshor Ledger 600mm  | 3.22     |
| RSX20600 | Rapidshor Ledger 300mm  | 2.00     |



### Base and Tilt Base

| Code     | Description          | Wt. (Kg) |
|----------|----------------------|----------|
| RSX10002 | Rapidshor Base 165mm | 3.08     |
| RSX10006 | Rapidshor Tilt Base  | 7.65     |



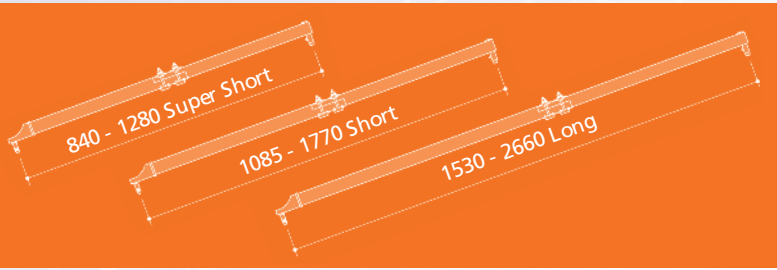
### Rapidshor Braces

| Code     | Lift Height (x) | Ledger Length (y) | Connect Pin Centres (z) | AWL in Compression | Tensile Load | Weight (Kg) |
|----------|-----------------|-------------------|-------------------------|--------------------|--------------|-------------|
| RSX31009 | 1000            | 900               | 1244                    | 15.7kN             | 16.25 kN     | 4.85        |
| RSX31012 | 1000            | 1200              | 1443                    | 13.0 kN            | 16.25 kN     | 5.43        |
| RSX31018 | 1000            | 1800              | 1821                    | 11.8 kN            | 16.25 kN     | 7.98        |
| RSX31024 | 1000            | 2400              | 2453                    | 5.9 kN             | 16.25 kN     | 9.88        |
| RSX31015 | 1500            | 900               | 1672                    | 10.5 kN            | 16.25 kN     | 6.11        |
| RSX31512 | 1500            | 1200              | 1825                    | 10.2 kN            | 16.25 kN     | 6.55        |
| RSX31518 | 1500            | 1800              | 2223                    | 7.0 kN             | 16.25 kN     | 9.06        |
| RSX31524 | 1500            | 2400              | 2696                    | 8.0 kN             | 16.25 kN     | 12.85       |

Adjustable Braces: AWL 6.25 kN in tension or compression.

### Adjustable Jack

| Code     | Description               | Wt. (Kg) |
|----------|---------------------------|----------|
| RSX10004 | Rapidshor Jack 25 - 540mm | 6.12     |



### Adjustable Braces

| Code     | Description                        | Wt. (Kg) |
|----------|------------------------------------|----------|
| RSX30003 | Rapidshor Brace - Super Short      | 6.42     |
| RSX30002 | Rapidshor Brace - Short Adjustable | 8.09     |
| RSX30001 | Rapidshor Brace - Long Adjustable  | 11.42    |



### Clamps

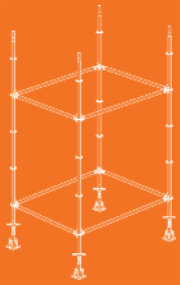
| Code     | Description                  | Wt. (Kg) |
|----------|------------------------------|----------|
| AFX20017 | Wedge Clamp Assembly         | 0.23     |
| ALX10002 | Flange to Flange Wedge Clamp | 0.5      |
| ALX10001 | Universal Clamp              | 0.73     |



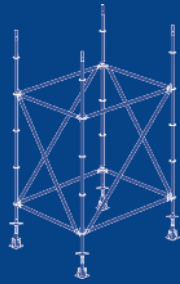




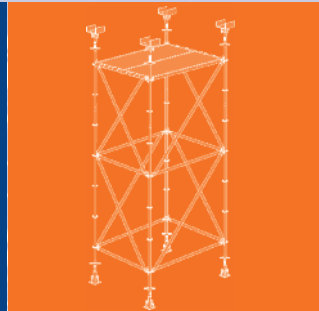
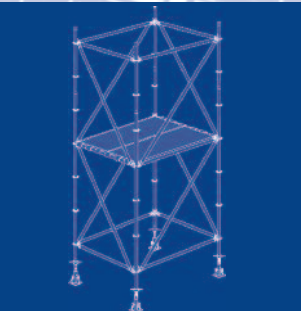
1. Ensure the ground and sleepers are adequately prepared and the initial bases, jacks and standards are in the correct positions.



2. Assemble tower of 4 standards and ledgers. Fix braces to stabilise.



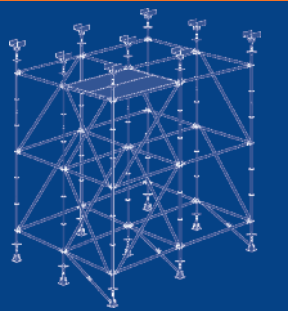
3. Loosely fit the remaining components until majority of first level complete, check standards for verticality and tighten ledgers.



6. Once all levels are complete, jacks and heads can now be positioned.

4. Boarding and ladders can be positioned allowing safe access to next level.

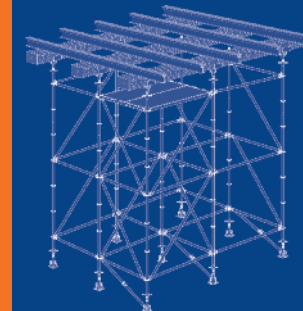
5. Additional ledgers and braces can now be added, along with adjustable braces as required.



7. Jack head levels finalised and any jack bracing required is now fitted.



8. Primary beams can now be positioned and clamped if necessary.



9. Secondary beams can now be positioned and clamped if necessary allowing plywood decking to follow.

## assembly instruction

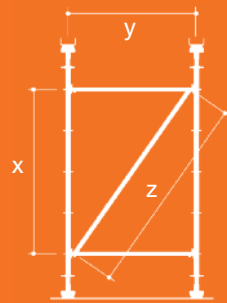
The modular structure of Rapidshor ensures erection is quick and simple. Additional ledgers may be added as guardrails during erection. Advance guardrails are also available as are intermediate board bearers to suit 36mm thick timber boards.

For more detailed assembly information, please refer to the Rapidshor Equipment Guidance Notes or contact your local RMD Kwikform Engineering Office.



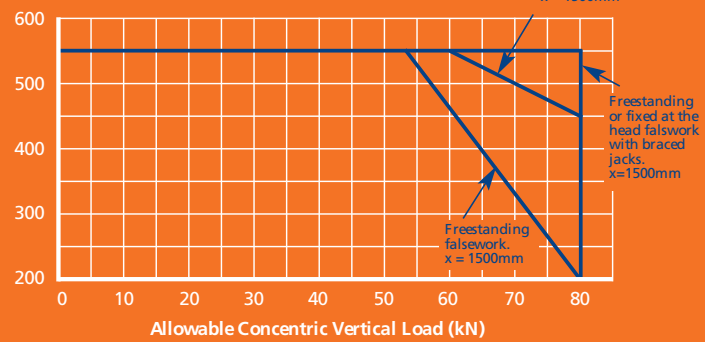
## Allowable working loads in standards

Rapidshor maximum leg load = 80 kN  
when  $x \leq 1500\text{mm}$



## Allowable working loads in jacks

Jack Extension (mm)



## design and loading data

### Allowable working loads in braces

| Code     | Lift Height (x) | Ledger Length (y) | Connect Pin Centres (z) | AWL in Compression | Tensile Load | Weight (Kg) |
|----------|-----------------|-------------------|-------------------------|--------------------|--------------|-------------|
| RSX31009 | 1000            | 900               | 1244                    | 15.7kN             | 16.25 kN     | 4.85        |
| RSX31012 | 1000            | 1200              | 1443                    | 13.0 kN            | 16.25 kN     | 5.43        |
| RSX31018 | 1000            | 1800              | 1821                    | 11.8 kN            | 16.25 kN     | 7.98        |
| RSX31024 | 1000            | 2400              | 2453                    | 5.9 kN             | 16.25 kN     | 9.88        |
| RSX31015 | 1500            | 900               | 1672                    | 10.5 kN            | 16.25 kN     | 6.11        |
| RSX31512 | 1500            | 1200              | 1825                    | 10.2 kN            | 16.25 kN     | 6.55        |
| RSX31518 | 1500            | 1800              | 2223                    | 7.0 kN             | 16.25 kN     | 9.06        |
| RSX31524 | 1500            | 2400              | 2696                    | 8.0 kN             | 16.25 kN     | 12.85       |

Adjustable Braces: AWL 6.25 kN in tension or compression.

### Leg make-ups

| Propping Height<br>Min* - Max | Standards           |                     |                     |                     | Jack               | Base            | Head            | Joint Sleeve    | Base Sleeve     | Sleeve Clip   |
|-------------------------------|---------------------|---------------------|---------------------|---------------------|--------------------|-----------------|-----------------|-----------------|-----------------|---------------|
|                               | RSX42500<br>OE 2500 | RSX42000<br>OE 2000 | RSX41500<br>OE 1500 | RSX41000<br>OE 1000 | RSX10004<br>25-540 | RSX10002<br>165 | RSX10003<br>173 | RSX10005<br>300 | RSX10010<br>214 | RSX10009<br>- |
| 1385 - 1875                   | -                   | -                   | -                   | 1                   | 1                  | 1               | 1               | -               | 1               | 1             |
| 1885 - 2375                   | -                   | -                   | 1                   | -                   | 1                  | 1               | 1               | -               | 1               | 1             |
| 1950 - 2415                   | -                   | -                   | -                   | 1                   | 2                  | 1               | 1               | -               | -               | -             |
| 1950 - 2915                   | -                   | -                   | 1                   | -                   | 2                  | 1               | 1               | -               | -               | -             |
| 2410 - 3415                   | -                   | 1                   | -                   | -                   | 2                  | 1               | 1               | -               | -               | -             |
| 2910 - 3915                   | 1                   | -                   | -                   | -                   | 2                  | 1               | 1               | -               | -               | -             |
| 3410 - 4415                   | -                   | 1                   | -                   | 1                   | 2                  | 1               | 1               | 1               | -               | 1             |
| 3910 - 4915                   | -                   | 1                   | 1                   | -                   | 2                  | 1               | 1               | 1               | -               | 1             |
| 4410 - 5415                   | 1                   | -                   | 1                   | -                   | 2                  | 1               | 1               | 1               | -               | 1             |
| 4910 - 5915                   | 1                   | 1                   | -                   | -                   | 2                  | 1               | 1               | 1               | -               | 1             |
| 5410 - 6415                   | 2                   | -                   | -                   | -                   | 2                  | 1               | 1               | 1               | -               | 1             |
| 5910 - 6915                   | 1                   | 1                   | -                   | 1                   | 2                  | 1               | 1               | 2               | -               | 2             |
| 6410 - 7415                   | 1                   | 1                   | 1                   | -                   | 2                  | 1               | 1               | 2               | -               | 2             |
| 6910 - 7915                   | 2                   | -                   | 1                   | -                   | 2                  | 1               | 1               | 2               | -               | 2             |
| 7410 - 8415                   | 2                   | 1                   | -                   | -                   | 2                  | 1               | 1               | 2               | -               | 2             |
| 7910 - 8915                   | 3                   | -                   | -                   | -                   | 2                  | 1               | 1               | 2               | -               | 2             |
| 8410 - 9415                   | 2                   | 1                   | -                   | 1                   | 2                  | 1               | 1               | 3               | -               | 3             |
| 8910 - 9915                   | 2                   | 1                   | 1                   | -                   | 2                  | 1               | 1               | 3               | -               | 3             |

\*This allows for 20mm for striking one jack, all dimensions are in mm.



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