

PIAS

CATALOG



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Excellence

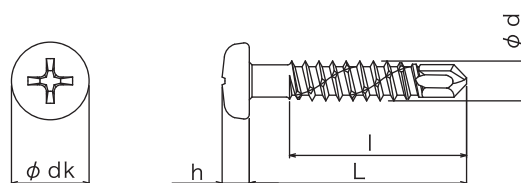


Pan



Excellent cutting edge

| Size | Quantity × small box | L | l (Thread) | φ dk | h | Cross recess | φ d | Thickness applied | Trivalent chrome (White) | SUS410 Passivated | SUS410 Tin plating |
|--------|-------------------------|----|-------------------|------|-----|-----------------|------------------------|----------------------|-----------------------------|----------------------|-----------------------|
| 3.5×10 | 1,500 × 10 | 10 | Fully threaded | 7.0 | 2.8 | #2 | 3.5 | 0.9~2.3 | ● | | |
| 3.5×13 | 1,000 × 10 | 13 | | | | | | | ● | | |
| 3.5×16 | 1,000 × 10 | 16 | | | | | | | ● | | |
| 3.5×19 | 800 × 10 | 19 | | | | | | | ● | | |
| 3.5×25 | 600 × 10 | 25 | | | | | | | ● | | |
| 4 × 10 | 1,000 × 10 | 10 | Fully threaded | 8.2 | 2.9 | #2 | 4.2 | 0.9~2.6 | ● | ● | ● |
| 4 × 13 | 1,000 × 10 | 13 | | | | | | 1.2~3.6 | ● | ● | ● |
| 4 × 16 | 1,000 × 10 | 16 | | | | | | | ● | ● | ● |
| 4 × 19 | 700 × 10 | 19 | | | | | | | ● | ● | ● |
| 4 × 25 | 500 × 10 | 25 | | | | | | | ● | ● | ● |
| 4 × 30 | 400 × 10 | 30 | 30 | | | | | 1.2~3.6 | ● | ● | ● |
| 4 × 35 | 800 × 4 | 35 | | | | | | | ● | | |
| 4 × 40 | 700 × 4 | 40 | | | | | | | ● | | |
| 4 × 45 | 600 × 4 | 45 | | | | | | | ● | | |
| 4 × 50 | 600 × 4 | 50 | | | | | | | 30 | ● | |
| 5 × 13 | 600 × 10 | 13 | Fully threaded | 9.5 | 3.3 | #2 | 4.8 SUS410 (5.0) | 1.6~4.0 | ● | ● | ● |
| 5 × 16 | 600 × 10 | 16 | | | | | | | ● | ● | ● |
| 5 × 19 | 500 × 10 | 19 | | | | | | | ● | ● | ● |
| 5 × 25 | 500 × 10 | 25 | | | | | | | ● | ● | ● |
| 5 × 30 | 1,000 × 4 | 30 | | | | | | | ● | ● | ● |
| 5 × 35 | 700 × 4 | 35 | | | | | | | ● | ● | ● |
| 5 × 40 | 500 × 4 | 40 | | | | | | | ● | ● | ● |
| 5 × 45 | 500 × 4 | 45 | | | | | | | ● | ● | ● |
| 6 × 19 | 1,000 × 4 | 19 | Fully threaded | 10.2 | 4.0 | #3 | 6.0 | 2.3~4.5 | ● | | |
| 6 × 25 | 800 × 4 | 25 | | | | | | | ● | | |
| 6 × 35 | 500 × 4 | 35 | | | | | | | ● | | |



Pan Austenitic stainless steel

Passivated (For soft material, aluminum etc.)

| Size | Quantity × small box | l (Thread) | φ dk | h | Cross recess | φ d | Thickness applied |
|--------|-------------------------|-------------------|------|-----|-----------------|-----|----------------------|
| 4 × 10 | 1,000 × 10 | Fully threaded | 8.2 | 2.9 | #2 | 4.2 | 0.9~2.6 |
| 4 × 13 | 1,000 × 10 | | | | | | 1.2~3.6 |
| 4 × 16 | 1,000 × 10 | | | | | | |
| 4 × 19 | 700 × 10 | | | | | | |
| 4 × 25 | 500 × 10 | | | | | | |
| 4 × 30 | 400 × 10 | | | | | | |

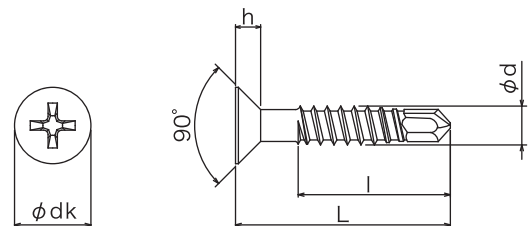
Flat



Stable drillability

Flat Trivalent chrome(white) • SUS-410

| Size | Quantity × small box | L | l (Thread) | φ dk | h | Cross recess | φ d | Thickness applied | Trivalent chrome (White) | SUS410 Passivated | SUS410 Tin plating |
|----------|-------------------------|----|-------------------|------|-----|-----------------|------------------------|----------------------|-----------------------------|----------------------|-----------------------|
| 3.5 × 10 | 2,000 × 10 | 10 | Fully threaded | 7.0 | 1.9 | #2 | 3.5 | 0.9~2.3 | ● | ● | ● |
| 3.5 × 13 | 1,500 × 10 | 13 | | | | | | | ● | | |
| 3.5 × 16 | 1,000 × 10 | 16 | | | | | | | ● | | |
| 3.5 × 19 | 1,000 × 10 | 19 | | | | | | | ● | | |
| 3.5 × 25 | 700 × 10 | 25 | | | | | | | ● | | |
| 4 × 10 | 1,500 × 10 | 10 | Fully threaded | 8.0 | 2.3 | #2 | 4.2 | 0.9~2.3 | ● | ● | ● |
| 4 × 13 | 1,000 × 10 | 13 | | | | | | | ● | ● | ● |
| 4 × 16 | 1,000 × 10 | 16 | | | | | | | ● | ● | ● |
| 4 × 19 | 1,000 × 10 | 19 | | | | | | | ● | ● | ● |
| 4 × 25 | 500 × 10 | 25 | | | | | | | ● | ● | ● |
| 4 × 30 | 500 × 10 | 30 | 37 | 8.0 | 2.3 | #2 | 4.2 | 1.2~3.6 | ● | ● | ● |
| 4 × 35 | 1,000 × 4 | 35 | | | | | | | ● | | |
| 4 × 40 | 700 × 4 | 40 | | | | | | | ● | | |
| 4 × 45 | 600 × 4 | 45 | | | | | | | ● | | |
| 4 × 50 | 600 × 4 | 50 | | | | | | | ● | | |
| 4 × 60 | 400 × 4 | 60 | | | | | | | ● | | |
| 4 × 65 | 400 × 4 | 65 | | | | | | | ● | | |
| 4 × 70 | 400 × 4 | 70 | | | | | | | ● | | |
| 4 × 75 | 400 × 4 | 75 | | | | | | | ● | | |
| 5 × 13 | 1,000 × 10 | 13 | Fully threaded | 10.0 | 2.8 | #2 | 4.8 SUS410 (5.0) | 1.6~4.0 | | ● | ● |
| 5 × 16 | 700 × 10 | 16 | | | | | | | | ● | ● |
| 5 × 19 | 500 × 10 | 19 | | | | | | | ● | ● | ● |
| 5 × 25 | 500 × 10 | 25 | | | | | | | ● | ● | ● |
| 5 × 30 | 1,000 × 4 | 30 | | | | | | | ● | ● | ● |
| 5 × 35 | 1,000 × 4 | 35 | 30 | 10.0 | 2.8 | #2 | 4.8 SUS410 (5.0) | 1.6~4.0 | ● | ● | ● |
| 5 × 40 | 700 × 4 | 40 | | | | | | | ● | ● | ● |
| 5 × 45 | 500 × 4 | 45 | | | | | | | ● | ● | ● |
| 5 × 50 | 400 × 4 | 50 | | | | | | | ● | ● | ● |
| 5 × 60 | 400 × 4 | 60 | | | | | | | ● | ● | ● |
| 5 × 65 | 300 × 4 | 65 | | | | | | | ● | ● | ● |
| 5 × 70 | 300 × 4 | 70 | | | | | | | ● | ● | ● |
| 5 × 75 | 250 × 4 | 75 | | | | | | | ● | ● | ● |



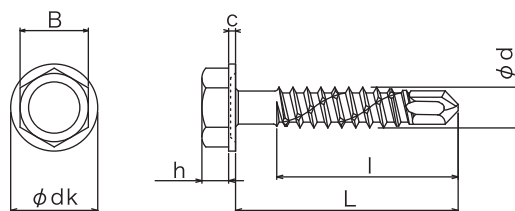
Hex



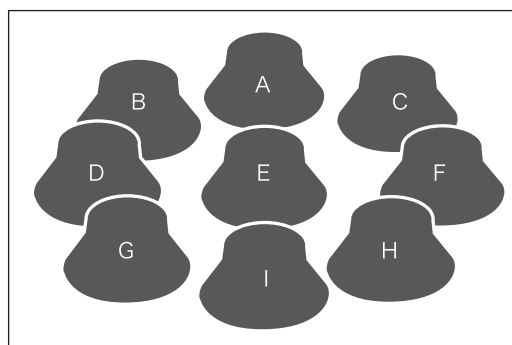
PIAS®
Pias screw

Hex Trivalent chrome(white) • SUS-410

| Size | Quantity × small box | L | I (Thread) | φ dk | B | h | φ d | Thickness applied | Trivalent chrome (White) | SUS410 Passivated | SUS410 Tin plating |
|---------|-------------------------|-----|-------------------|------|-----|-----|------------------------|----------------------|-----------------------------|----------------------|-----------------------|
| 4 × 13 | 2,000 × 4 | 13 | Fully threaded | 9.0 | 7.0 | 2.8 | 4.2 | 1.2~3.6 | ● | | |
| 4 × 16 | 2,000 × 4 | 16 | | | | | | | ● | | |
| 4 × 19 | 1,500 × 4 | 19 | | | | | | | ● | | |
| 4 × 25 | 1,000 × 4 | 25 | | | | | | | ● | | |
| 5 × 16 | 1,000 × 4 | 16 | Fully threaded | 11.0 | 8.0 | 3.9 | 4.8 SUS410 (5.0) | 2.3~4.4 | ● | | |
| 5 × 19 | 1,000 × 4 | 19 | | | | | | | ● | ● | ● |
| 5 × 25 | 1,000 × 4 | 25 | | | | | | | ● | ● | ● |
| 5 × 35 | 500 × 4 | 35 | | | | | | | ● | ● | ● |
| 5 × 45 | 500 × 4 | 45 | 35 | 11.0 | 8.0 | 3.9 | 4.8 SUS410 (5.0) | 2.3~4.4 | ● | | |
| 5 × 50 | 400 × 4 | 50 | | | | | | | ● | | |
| 5 × 60 | 300 × 4 | 60 | | | | | | | ● | | |
| 5 × 70 | 250 × 4 | 70 | | | | | | | ● | | |
| 6 × 19 | 500 × 4 | 19 | Fully threaded | 13.0 | 9.5 | 4.8 | 6.0 | 2.3~6.0 | ● | ● | ● |
| 6 × 25 | 500 × 4 | 25 | | | | | | | ● | ● | ● |
| 6 × 30 | 500 × 4 | 30 | | | | | | | ● | | |
| 6 × 35 | 500 × 4 | 35 | | | | | | | ● | ● | ● |
| 6 × 40 | 300 × 4 | 40 | 35 | 13.0 | 9.5 | 4.8 | 6.0 | 2.3~6.0 | ● | | |
| 6 × 45 | 300 × 4 | 45 | | | | | | | ● | ● | ● |
| 6 × 50 | 300 × 4 | 50 | | | | | | | ● | ● | ● |
| 6 × 60 | 200 × 4 | 60 | | | | | | | ● | ● | ● |
| 6 × 70 | 200 × 4 | 70 | 58 | 13.0 | 9.5 | 4.8 | 6.0 | 2.3~6.0 | ● | | |
| 6 × 75 | 200 × 4 | 75 | | | | | | | ● | | |
| 6 × 80 | 200 × 4 | 80 | | | | | | | ● | | |
| 6 × 90 | 200 × 4 | 90 | | | | | | | ● | ● | |
| 6 × 105 | 150 × 4 | 105 | 68 | 13.0 | 9.5 | 4.8 | 6.0 | 2.3~6.0 | ● | | |
| 6 × 115 | 150 × 4 | 115 | | | | | | | ● | ● | |
| 6 × 135 | 150 × 4 | 135 | | | | | | | ● | ● | |
| 6 × 150 | 100 × 4 | 150 | | | | | | | ● | ● | |



Pias colored cap



A : 8474 B : 0209 C : 6754 D : 5801
E : 5670B F : 5274 G : 1662 H : 0465
I : black

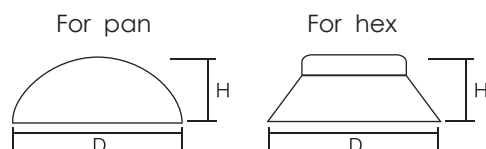
Actual colors of the products are different from the ones of the photo to some degree.

Pias colored cap

Caps mounted on screws



| Head | Dia | D | H |
|------|--------------|-------------|-----|
| Pan | M4(8#) | 14.6 ϕ | 5.6 |
| | M5(10#)(12#) | 18 ϕ | 6.0 |
| Hex | M5(10#)(12#) | 19.2 ϕ | 8.1 |
| | M6(14#) | 20.8 ϕ | 9.2 |



Custom-made caps

Contact us for other colors.

High-grade-anti-corrosion

The material, soft polyvinyl chloride, is the same one selected carefully for the sealing material of window frame of car, and therefore the cold resistance, heat resistance and weather resistance, including against UV light, are guaranteed adequately. Electro-galvanized steel screws with the caps, which are fastened into color steel plates, stainless and aluminum plates respectively, pass 20 cycles of sulfur dioxide gas corrosion test (DIN 50018, 2.0 liters per 300 liter tank).

Wide range of use and colors

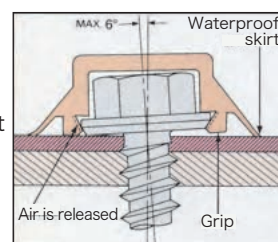
Suitable for exterior use, for which corrosion resistance, water-proof and good appearance are required, and interior use, too. 9 colors are available now, and other colors are also available with no extra charge in that case more than 50,000 pieces of the cap is ordered at all once.

Cost savings

More cost-effective compared with others' competitive products which are aimed for sealing purpose.

Unique mechanism of sealing

For advantageous effect of gripping part, the cap is not slipped even when it is exposed to solar heat. Even in that case screws are not fastened straight into panels, the caps seal the screw heads completely if the tilt is up to 6 degrees. In addition, the caps can stand up to wind speed at 100 meter per second, and no rain goes inside. Therefore dissimilar corrosion is prevented which sometimes happens under the condition that material of panels is different from screw material.



Note

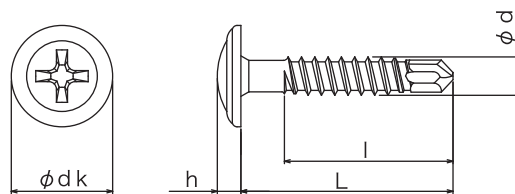
- Pias cap itself restores the deformed shape, which is caused during the packing and transporting, to its original state by exposing it to sun.
- Pias cap is designed to fit in with Pias screws. In that case the cap was put on screw heads of others' products, there would be a possibility that the cap is slipped and inconvenience may be caused to you due to patent law.

Thin washer

Trivalent chrome(white) : coarse thread, straight under head.



| Size | Quantity × small box | L | l (Thread) | φdk | h | Cross recess | φd | Thickness applied |
|--------|-------------------------|----|-------------------|------|-----|-----------------|-----|----------------------|
| 4 × 13 | 800 × 10 | 13 | Fully threaded | 11.0 | 2.5 | #2 | 4.2 | 1.2~3.6 |
| 4 × 16 | 600 × 10 | 16 | | | | | | |
| 4 × 19 | 500 × 10 | 19 | | | | | | |
| 4 × 25 | 500 × 10 | 25 | | | | | | |
| 4 × 30 | 400 × 10 | 30 | | | | | | |

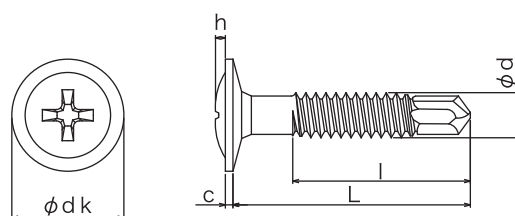


Thin washer

Trivalent chrome(white) : fine pitch thread, 24 threads, tapered under head.

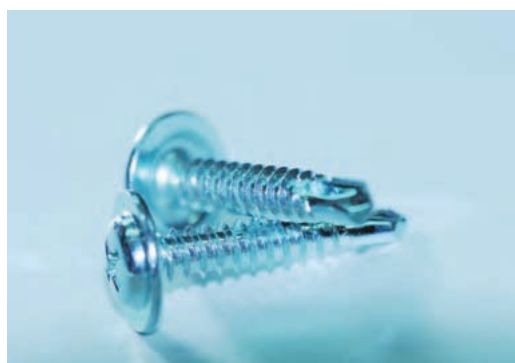


| Size | Quantity × small box | L | l (Thread) | φdk | h | c | Cross recess | φd | Thickness applied |
|---------|-------------------------|-----|-------------------|-----|-----|-----|-----------------|-----|----------------------|
| 5 × 13 | 1500 × 4 | 13 | Fully threaded | 12 | 1.7 | 0.8 | #2 | 4.8 | 1.6~4.0 |
| 5 × 16 | 1500 × 4 | 16 | | | | | | | |
| 5 × 22 | 1000 × 4 | 22 | | | | | | | |
| 5 × 35 | 500 × 4 | 35 | | | | | | | |
| 5 × 40 | 500 × 4 | 40 | | | | | | | |
| 5 × 45 | 500 × 4 | 45 | 35 | 50 | 60 | 70 | 80 | 90 | 100 |
| 5 × 50 | 400 × 4 | 50 | | | | | | | |
| 5 × 60 | 300 × 4 | 60 | | | | | | | |
| 5 × 70 | 300 × 4 | 70 | 50 | 80 | 90 | 100 | 110 | 120 | 130 |
| 5 × 80 | 300 × 4 | 80 | | | | | | | |
| 5 × 90 | 200 × 4 | 90 | | | | | | | |
| 5 × 100 | 200 × 4 | 100 | | | | | | | |

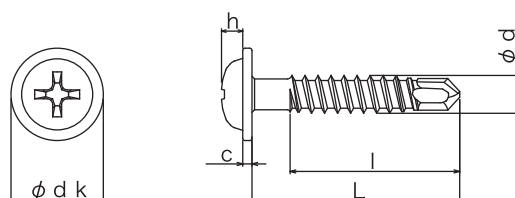


Pias pan washer

Trivalent chrome(white)

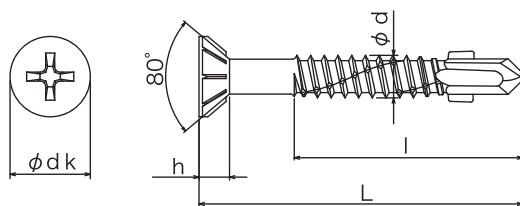


| Size | Quantity × small box | L | l (Thread) | φdk | h | c | Cross recess | φd | Thickness applied |
|--------|-------------------------|----|-------------------|------|-----|-----|-----------------|-----|----------------------|
| 4 × 13 | 800 × 10 | 13 | Fully threaded | 10.0 | 2.1 | 0.9 | #2 | 4.2 | 1.2~3.6 |
| 4 × 16 | 600 × 10 | 16 | | | | | | | |
| 4 × 19 | 500 × 10 | 19 | | | | | | | |
| 4 × 25 | 500 × 10 | 25 | | | | | | | |
| 5 × 13 | 500 × 10 | 13 | Fully threaded | 12.5 | 2.2 | 1.0 | #2 | 4.8 | 1.6~4.0 |
| 5 × 16 | 1000 × 4 | 16 | | | | | | | |
| 5 × 19 | 1000 × 4 | 19 | | | | | | | |
| 5 × 25 | 800 × 4 | 25 | | | | | | | |
| 5 × 35 | 500 × 4 | 35 | | | | | | | |
| 5 × 45 | 500 × 4 | 45 | | | | | | | |



Wing Pias

Trivalent chrome(white)



| Size | Quantity × small box | L | I (Thread) | φdk | h | Cross recess | φd | Thickness applied | | | | | |
|--------|-------------------------|----|-------------------|------|-----|-----------------|-----|----------------------|--|--|--|--|--|
| 4 × 28 | 500 × 10 | 28 | Fully threaded | 7.0 | 2.8 | #2 | 4.2 | 2.3~3.6 | | | | | |
| 4 × 32 | 500 × 10 | 32 | | | | | | | | | | | |
| 4 × 37 | 400 × 10 | 37 | | | | | | | | | | | |
| 4 × 40 | 800 × 4 | 40 | | | | | | | | | | | |
| 4 × 45 | 600 × 4 | 45 | | | | | | | | | | | |
| 4 × 55 | 600 × 4 | 55 | 42 | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 5 × 25 | 1000 × 4 | 25 | Fully threaded | 9.5 | 3.9 | #2 | 4.8 | 2.3~4.0 | | | | | |
| 5 × 32 | 1000 × 4 | 32 | | | | | | | | | | | |
| 5 × 37 | 800 × 4 | 37 | | | | | | | | | | | |
| 5 × 42 | 500 × 4 | 42 | | | | | | | | | | | |
| 5 × 45 | 500 × 4 | 45 | | | | | | | | | | | |
| 5 × 50 | 400 × 4 | 50 | 41 | | | | | | | | | | |
| 5 × 60 | 300 × 4 | 60 | 48 | | | | | | | | | | |
| 5 × 70 | 300 × 4 | 70 | 58 | | | | | | | | | | |
| 5 × 80 | 250 × 4 | 80 | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 6 × 35 | 500 × 4 | 35 | Fully threaded | 12.0 | 4.6 | #3 | 6.0 | 2.3~6.0 | | | | | |
| 6 × 40 | 400 × 4 | 40 | | | | | | | | | | | |
| 6 × 45 | 400 × 4 | 45 | | | | | | | | | | | |
| 6 × 50 | 300 × 4 | 50 | | | | | | | | | | | |
| 6 × 55 | 300 × 4 | 55 | | | | | | | | | | | |
| 6 × 60 | 250 × 4 | 60 | 60 | | | | | | | | | | |
| 6 × 70 | 250 × 4 | 70 | | | | | | | | | | | |
| 6 × 85 | 200 × 4 | 85 | | | | | | | | | | | |

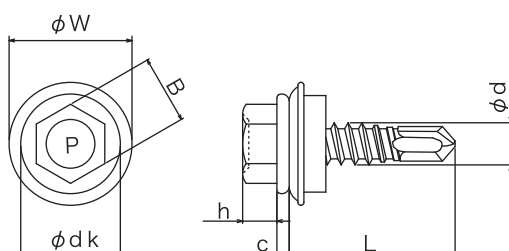
Wing Pias

SUS-410 passivation

| Size | Quantity × small box | L | I (Thread) | ϕdk | h | Cross recess | ϕd | Thickness applied |
|--------|-------------------------|----|-------------------|-----------|-----|-----------------|----------|----------------------|
| 4 × 28 | 500 × 10 | 28 | Fully threaded | 7.0 | 2.8 | #2 | 4.2 | 2.3~3.6 |
| 4 × 32 | 500 × 10 | 32 | | | | | | |
| 4 × 45 | 600 × 4 | 45 | | | | | | |

Pias stainless steel capped screw

Trivalent chrome(white)
Cap : Austenitic stainless steel



| Size | Quantity × small box | L | I (Thread) | ϕdk | B | h | c | ϕw | ϕd | Thickness applied |
|-------|-------------------------|-----|-------------------|-----------|-----|-----|-----|----------|----------|----------------------|
| 5×19 | 750×4 | 19 | Fully threaded | 11.0 | 8.0 | 3.8 | 1.4 | 14 | 4.8 | 2.3~4.4 |
| 5×25 | 650×4 | 25 | | | | | | | | |
| 5×35 | 450×4 | 35 | | | | | | | | |
| 5×45 | 350×4 | 45 | | | | | | | | |
| | | | | | | | | | | |
| 6×19 | 400×4 | 19 | Fully threaded | 14.0 | 9.5 | 4.4 | 2.0 | 17 | 6.0 | 2.3~6.0 |
| 6×25 | 300×4 | 25 | | | | | | | | |
| 6×35 | 250×4 | 35 | | | | | | | | |
| 6×45 | 200×4 | 45 | | | | | | | | |
| 6×50 | 200×4 | 50 | 35 | | | | | | | |
| 6×60 | 150×4 | 60 | | | | | | | | |
| 6×70 | 150×4 | 70 | | | | | | | | |
| 6×90 | 125×4 | 90 | 58 | | | | | | | |
| 6×105 | 125×4 | 105 | 68 | | | | | | | |
| 6×115 | 100×4 | 115 | | | | | | | | |
| 6×135 | 100×4 | 135 | | | | | | | | |
| 6×150 | 80×4 | 150 | | | | | | | | |

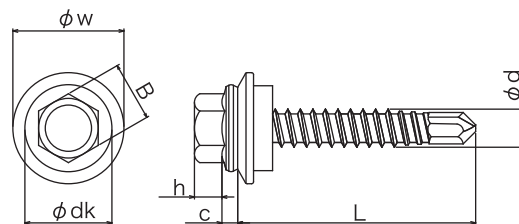
•For details of the washer and rubber, check the page 22.
•Grey rubber is also available for bonded washers.

Pias sealed hex

Trivalent chrome(white)



| Size | Quantity × small box | L | I (Thread) | φ dk | B | h | c | φ w | φ d | Thickness applied |
|--------|-------------------------|----|-------------------|------|-----|-----|-----|-----|-----|----------------------|
| 5 × 19 | 750 × 4 | 19 | Fully threaded | 11.0 | 8.0 | 3.9 | 1.8 | 14 | 4.8 | 2.3~4.4 |
| 5 × 25 | 650 × 4 | 25 | | | | | | | | |
| 5 × 35 | 450 × 4 | 35 | | | | | | | | |
| 5 × 45 | 350 × 4 | 45 | | | | | | | | |
| 6 × 19 | 400 × 4 | 19 | Fully threaded | 13.0 | 9.5 | 4.8 | 2.2 | 17 | 6.0 | 2.3~6.0 |
| 6 × 25 | 300 × 4 | 25 | | | | | | | | |
| 6 × 35 | 250 × 4 | 35 | | | | | | | | |
| 6 × 45 | 200 × 4 | 45 | | | | | | | | |



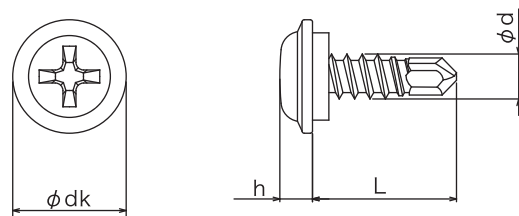
Pias sealed pan

Trivalent chrome(white)



| Size | Quantity × small box | L | I (Thread) | φ dk | h | Cross recess | φ d | Thickness applied |
|--------|-------------------------|----|-------------------|------|-----|-----------------|-----|----------------------|
| 4 × 13 | 700 × 10 | 13 | Fully threaded | 10.0 | 3.0 | #2 | 4.2 | 1.2~3.6 |

•For details of the rubber, check the page 22.

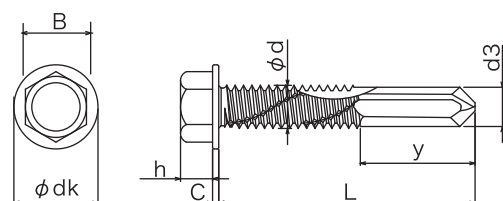


Long point (No.5 point)

Trivalent chrome(white) + waxed



| Size | Quantity × small box | L | I (Thread) | φ dk | B | h | c | φ d | d3 | y | Thickness applied |
|----------|-------------------------|----|-------------------|------|-----|-----|-----|-----|-----|------|----------------------|
| 5.5 × 32 | 600 × 4 | 32 | Fully threaded | 10.5 | 8.0 | 4.0 | 0.9 | 5.5 | 5.0 | 13.8 | 6.0~13.0 |



Mini point

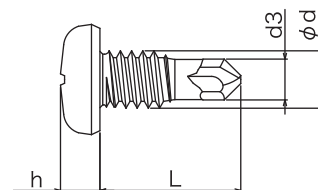


Trivalent chrome(white)

| Size | Quantity × small box | L | l (Thread) | φ dk | h | Cross recess | φ d | d3 | Thickness applied |
|--------|-------------------------|----|-------------------|------|-----|-----------------|-----|-----|---------------------------------------|
| 4 × 13 | 1,000 × 10 | 13 | Fully threaded | 8.0 | 2.9 | #2 | 4.0 | 2.9 | Steel 0.4 ~ 1.0 Aluminum 0.6 ~ 1.6 |

Ruspert silver

| Size | Quantity × small box | L | l (Thread) | φ dk | h | Cross recess | φ d | d3 | Thickness applied |
|--------|-------------------------|----|-------------------|------|-----|-----------------|-----|-----|---------------------------------------|
| 4 × 10 | 1,500 × 10 | 10 | Fully threaded | 8.0 | 2.9 | #2 | 4.0 | 2.9 | Steel 0.4 ~ 1.0 Aluminum 0.6 ~ 1.6 |



Technical Information

Pias self drilling screws Material : SWCH16A • SWCH18A (JIS G 3570)

Chemical composition

(%)

| C | Si | Mn | P | S | Al |
|-----------|---------|-----------|---------|----------|---------|
| 0.13~0.20 | max0.10 | 0.60~0.90 | max0.03 | max0.035 | max0.02 |

Pullout strength ※Screw shank broken

(N)

| Thread dia | Thickness 1.2mm | Thickness 1.6mm | Thickness 2.3mm | Thickness 3.2mm | Thickness 4.2mm | Thickness 6.0mm |
|------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| M3.5 | 1470 | 2156 | 3431 | — | — | — |
| M4 | 1568 | 2352 | 3823 | 4607 | 7941 | — |
| M5 | — | 2352 | 3921 | 6666 | 10294 | — |
| M5.5 | — | — | 4117 | 6960 | 10882 | ※17843 |
| M6 | — | — | 4313 | 7156 | 12549 | ※20294 |

Shear and tensile strength

(N)

| Thread dia | Shear strength | Tensile strength |
|------------|----------------|------------------|
| M3.5 | 3029 | 4431 |
| M4 | 7254 | 11156 |
| M5 | 8843 | 13607 |
| M5.5 | 12058 | 18549 |
| M6 | 14323 | 20431 |

Torsional torque

(N·m)

| Thread dia | Torque |
|------------|--------|
| M3.5 | 3.98 |
| M4 | 6.68 |
| M5 | 11.14 |
| M5.5 | 15.41 |
| M6 | 21.55 |

Pias SUS-410 self drilling screws

Material : Stainless steel (JIS G 4309 or AISI SUS-410)

Chemical composition

(%)

| C | Si | Mn | P | S | Ni | Cr |
|---------|---------|---------|----------|----------|--------|-------------|
| max0.15 | max1.00 | max1.00 | max0.040 | max0.030 | max0.6 | 11.50~13.50 |

Pullout strength

※Screw shank broken

(N)

| Thread dia | Thickness 1.2mm | Thickness 1.6mm | Thickness 2.3mm | Thickness 3.2mm | Thickness 4.2mm | Thickness 6.0mm |
|------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| M3.5 | 1470 | 2156 | 3431 | — | — | — |
| M4 | 1568 | 2352 | 3823 | 4607 | 7941 | — |
| M5 | — | 2352 | 3921 | 6666 | 10294 | — |
| M5.5 | — | — | 4117 | 6960 | 10882 | ※18529 |
| M6 | — | — | 4313 | 7156 | 12549 | ※20294 |

Shear and tensile strength

(N)

| Thread dia | Shear strength | Tensile strength |
|------------|----------------|------------------|
| M3.5 | 3186 | 4843 |
| M4 | 5490 | 9245 |
| M5 | 8470 | 13607 |
| M5.5 | 9950 | 19039 |
| M6 | 11960 | 20098 |

Torsional torque

(N·m)

| Thread dia | Torque |
|------------|--------|
| M3.5 | 4.57 |
| M4 | 6.79 |
| M5 | 10.29 |
| M5.5 | 16.81 |
| M6 | 21.10 |

Piasta self drilling screws

Material : Austenitic bi-metal stainless steel, A2 (Piasta)

Chemical composition

(%)

| Ni | C | Si | Mn | P | S | Cr | Cu |
|----------|---------|---------|---------|----------|----------|-----------|---------|
| 8.5~10.5 | max0.08 | max1.00 | max2.00 | max0.045 | max0.030 | 17.0~19.0 | 3.0~4.0 |

Pullout strength

※Screw shank broken

(N)

| Thread dia | Thickness 1.2mm | Thickness 1.6mm | Thickness 2.3mm | Thickness 3.2mm | Thickness 4.2mm | Thickness 6.0mm |
|------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| M3.5 | 1470 | 1960 | 2549 | — | — | — |
| M4 | 1568 | 2255 | 4020 | 5980 | — | — |
| M5 | — | 2450 | 4215 | 6275 | 8431 | — |
| M5.5 | — | — | 4310 | 6765 | 8922 | 10020 |
| M6 | — | — | 4410 | 7647 | 9313 | 13530 |

Shear and tensile strength

(N)

| Thread dia | Shear strength | Tensile strength |
|------------|----------------|------------------|
| M3.5 | 3040 | 4705 |
| M4 | 4805 | 7353 |
| M5 | 5980 | 9313 |
| M5.5 | 8627 | 13330 |
| M6 | 10588 | 16275 |

Torsional torque

(N·m)

| Thread dia | Torque |
|------------|--------|
| M3.5 | 2.5 |
| M4 | 3.8 |
| M5 | 6.3 |
| M5.5 | 8.3 |
| M6 | 12.6 |

Trust



For fixing of deck plates



Chrome

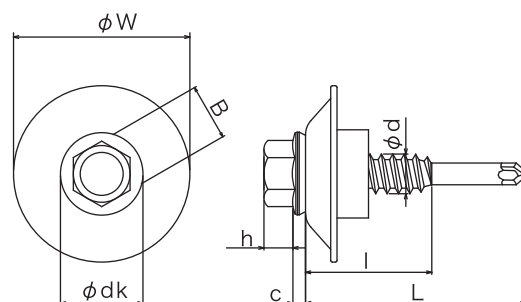
(Hexavalent chrome screw and washer)

| Size | Quantity × small box | L | l (Thread) | φdk | B | φw | h | c | φd | Thickness applied |
|----------|-------------------------|----|------------|-----|-----|----|-----|-----|-----|----------------------|
| 6.3 × 35 | 100 × 10 | 35 | 20 | 13 | 9.5 | 28 | 4.8 | 2.2 | 6.3 | 0.5~1.2 |

Stainless steel cap

(Trivalent chrome white screw with pias stainless steel cap • Stainless steel washer)

| Size | Quantity × small box | L | l (Thread) | φdk | B | φw | h | c | φd | Thickness applied |
|----------|-------------------------|----|------------|-----|-----|----|-----|-----|-----|----------------------|
| 6.3 × 35 | 100 × 10 | 35 | 20 | 13 | 9.5 | 28 | 4.8 | 2.2 | 6.3 | 0.5~1.2 |

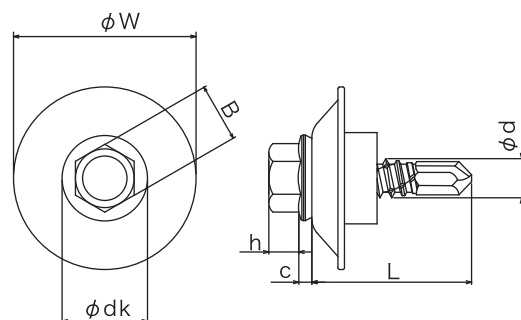


For fixing of deck plate to fixing frame

Chrome (Hexavalent chrome screw and washer)



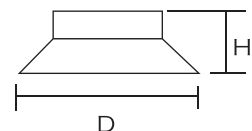
| Size | Quantity × small box | L | l (Thread) | φdk | B | φw | h | c | φd | Thickness applied |
|----------|-------------------------|----|-------------------|-----|-----|----|-----|-----|-----|----------------------|
| 6.3 × 25 | 100 × 10 | 25 | Fully threaded | 13 | 9.5 | 28 | 4.8 | 2.2 | 6.0 | 2.3~6.0 |



Pias cap for deck plate screw



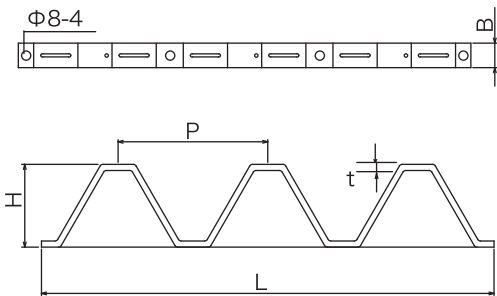
| Size | Quantity × small box | φd | H |
|--------------|----------------------|------|----|
| Grey Blue | 150 × 8 | 32.8 | 14 |



Fixing frame



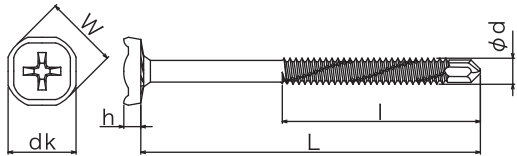
| Size | Quantity/carton | H | L | B | t | P | For fixing of deck plate to fixing frame |
|----------|-----------------|----|-----|----|-----|-----|--|
| 88 × 600 | 50 | 93 | 595 | 30 | 2.3 | 200 | 6.3×25 150pieces per carton |



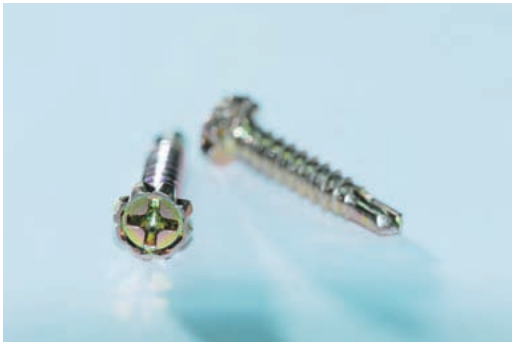
For ALC panel on steel beam Hexavalent chrome



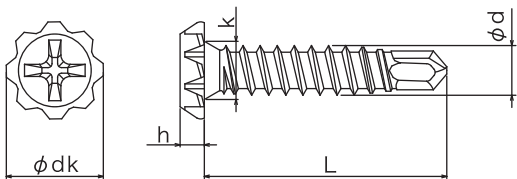
| Size | Quantity × small box | L | l (Thread) | dk | w | h | φ d | Thickness applied |
|--------|-------------------------|----|------------|------|------|-----|-----|-------------------|
| 5 × 60 | 300 × 4 | 60 | 35.0 | 12.0 | 13.0 | 3.0 | 4.6 | 2.3~4.4 |
| 5 × 65 | 250 × 4 | 65 | | | | | | |



Pias flower head Hexavalent chrome



| Size | Quantity × small box | L | l (Thread) | dk | w | h | φ d | Thickness applied |
|--------|-------------------------|----|----------------|-----|-----|-----|-----|-------------------|
| 4 × 22 | 700 × 10 | 22 | Fully threaded | 8.0 | 2.0 | 4.8 | 4.0 | 1.2~3.6 |



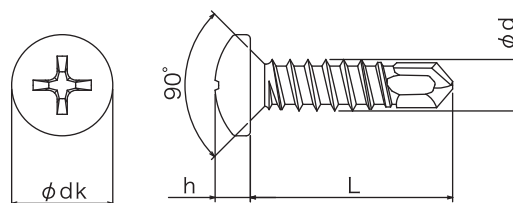
Fixing frame • For ALC panel on steel beam • Pias flower head

Pias pan for enameled material

Hexavalent chrome

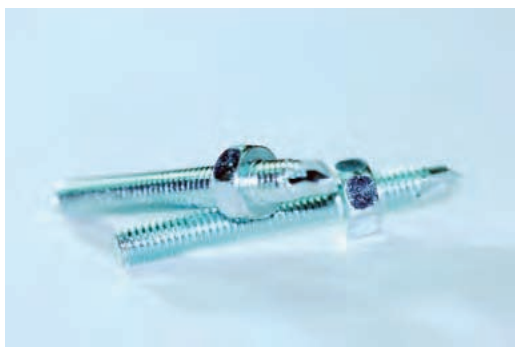


| Size | Quantity × small box | L | l (Thread) | ϕdk | h | ϕd | Thickness applied |
|--------|-------------------------|----|-------------------|-----------|-----|----------|----------------------|
| 4 × 16 | 1,000 × 10 | 16 | Fully threaded | 8.0 | 2.9 | 4.2 | 1.2~3.6 |

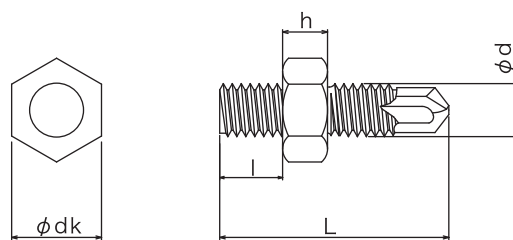


Twin pias

Hexavalent chrome



| Size | Quantity × small box | L | l (Thread) | ϕdk | h | ϕd | Thickness applied |
|--------|-------------------------|----|------------|-----------|-----|----------|----------------------|
| 6 × 25 | 500 × 4 | 25 | 7.0 | 10.0 | 5.0 | 6.0 | 2.3~4.0 |
| 6 × 50 | 300 × 4 | 50 | 32.0 | | | | |
| 6 × 60 | 250 × 4 | 60 | 42.0 | | | | |
| 6 × 80 | 200 × 4 | 80 | 62.0 | | | | |



Pias inserts

Hexavalent chrome (3/8W)

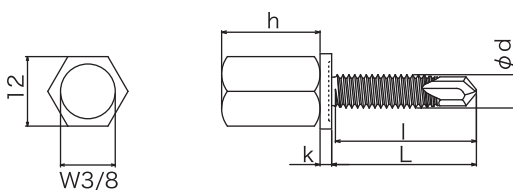


Pias inserts (standard)

| Size | Quantity × small box | L | l (Thread) | ϕdk | k | ϕd | Thickness applied |
|--------|-------------------------|----|-------------------|-----------|-----|----------|----------------------|
| 6 × 25 | 250 × 4 | 25 | Fully threaded | 17.0 | 2.0 | 5.8 | 2.3~6.0 |

Pias inserts (long point)

| Size | Quantity × small box | L | l (Thread) | ϕdk | k | ϕd | Thickness applied |
|---------------|-------------------------|----|-------------------|-----------|-----|----------|----------------------|
| 6 × 35 No5 | 200 × 4 | 35 | Fully threaded | 17.0 | 2.0 | 5.8 | 6.0~12.0 |



Innovation



Fulfilment of desired product against anti-corrosion

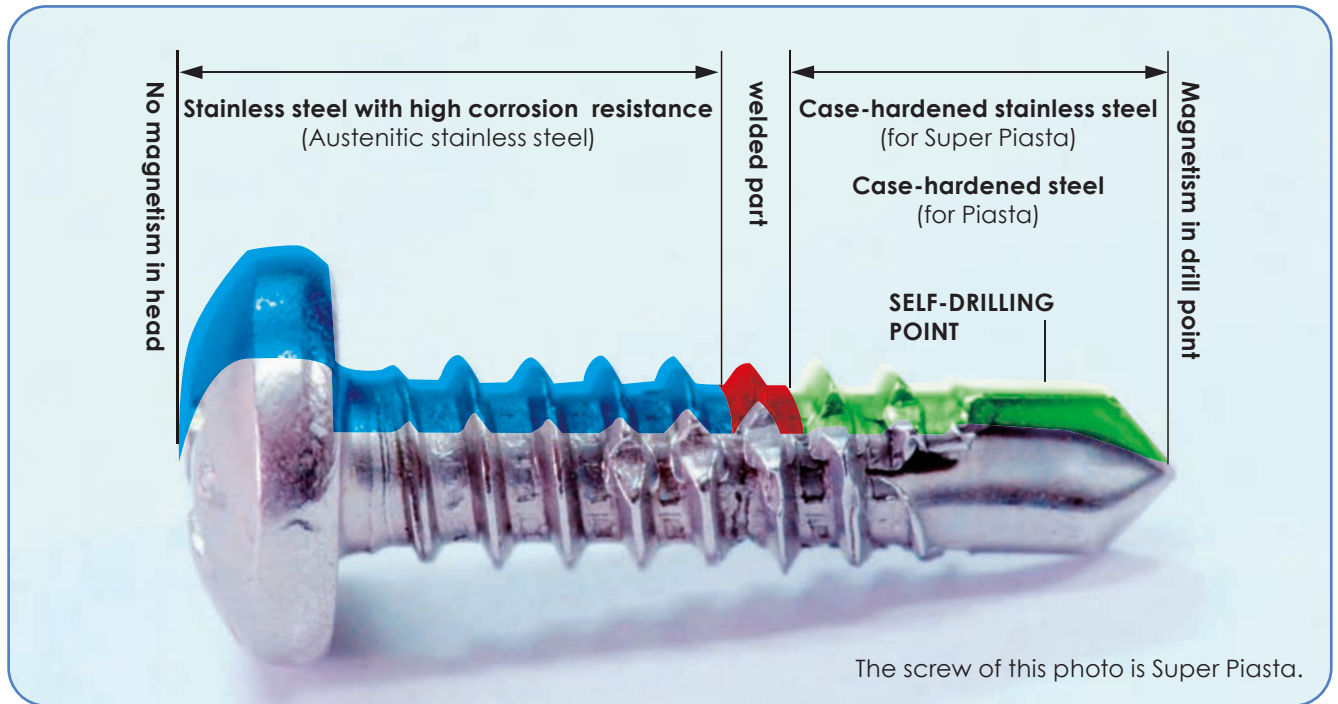
Patent obtained in key countries

SELF-DRILLING SCREWS by BHMETALS 18-8(A2)

SUPER PIASTA®

PIASTA®

● Drillability and Anti-corrosion



| Type | Size | Quantity × small box | Thickness applied | Super Piasta | Piasta |
|------|--------|-------------------------|----------------------|--------------|--------|
| PAN | 4 × 13 | 1,000 × 10 | 1.2~1.6 | ● | ● |
| | 4 × 16 | 1,000 × 10 | 1.2~2.3 | ● | ● |
| | 4 × 19 | 700 × 10 | 1.2~3.2 | ● | ● |
| | 4 × 25 | 500 × 10 | | ● | ● |
| PAN | 5 × 19 | 500 × 10 | 1.6~3.2 | ● | ● |
| | 5 × 25 | 500 × 10 | 1.6~4.0 | ● | ● |
| | 5 × 35 | 700 × 4 | | ● | ● |
| HEX | 5 × 19 | 1,000 × 4 | 1.6~3.2 | ● | ● |
| | 5 × 25 | 1,000 × 4 | 1.6~4.0 | ● | ● |
| | 5 × 35 | 500 × 4 | | ● | ● |
| | 5 × 45 | 500 × 4 | | | ● |
| HEX | 6 × 25 | 500 × 4 | 2.3~4.5 | | ● |
| | 6 × 35 | 500 × 4 | 2.3~6.0 | | ● |
| | 6 × 45 | 300 × 4 | | | ● |

| Type | Size | Quantity × small box | Thickness applied | Super Piasta | Piasta |
|------------|--------|-------------------------|----------------------|--------------|--------|
| Wing screw | 4 × 32 | 500 × 10 | 2.3~3.2 | | ● |
| | 4 × 37 | 400 × 10 | | | ● |
| Wing screw | 5 × 37 | 800 × 4 | 2.3~3.2 | | ● |
| | 5 × 45 | 500 × 4 | | | ● |
| Wing screw | 6 × 70 | 250 × 4 | 2.3~5.5 | | ● |
| Flat | 4 × 16 | 1,000 × 10 | 1.2~1.5 | ● | |
| | 4 × 19 | 1,000 × 10 | 1.2~2.3 | ● | |
| | 4 × 25 | 500 × 10 | 1.2~3.2 | ● | |
| Flat | 5 × 19 | 500 × 10 | 1.6~2.3 | ● | |
| | 5 × 25 | 500 × 10 | 1.6~3.2 | ● | |

Characteristics of Super Piasta

Self-drilling screw with advantages of 2 stainless steel : one with hardenability and the another one with high corrosion resistance.

| | |
|---|---|
| 1. Surface treatment | Special passivation with shininess of stainless steel itself. |
| 2. Bi-metal | Austenitic stainless steel for the head and shank. |
| 3. Reliable strength | A2-700N in ISO standard for strength, is guaranteed. |
| 4. Thread no-damage | Hardened threads first tap threads to sheet so no damage on stainless threads. |
| 5. Power savings | The sharp drill point skips the pre-drilling process and low load is just necessary for installation. |
| 6. Brilliant appearance and high corrosion resistance | Having the brilliant appearance and high corrosion resistance, this screw is suitable for exterior and wall material. |

Piasta pan
Ruspert Plus



Piasta wing screw
Ruspert Plus



Piasta hex
Ruspert Plus

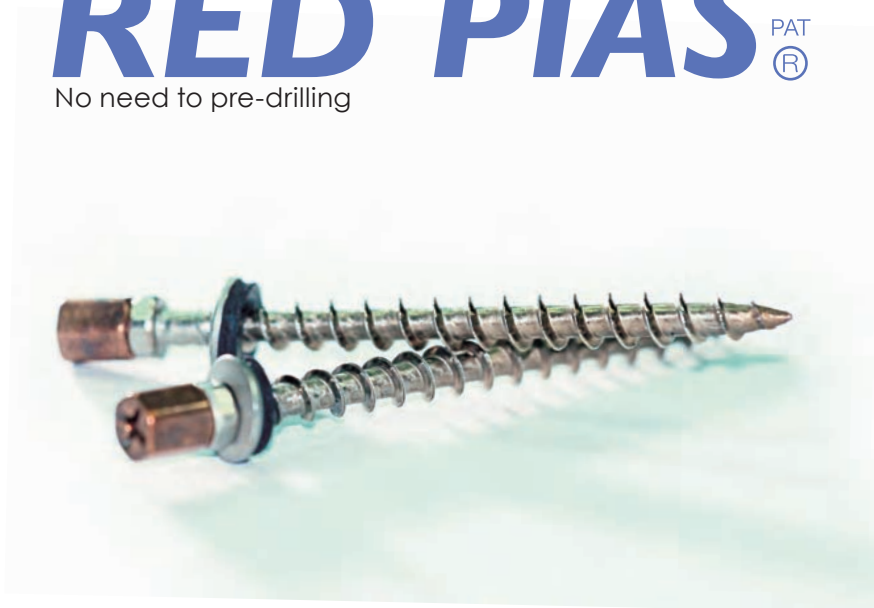


Best solution for installation work to ALC panels

Austenitic stainless steel with high corrosion resistance

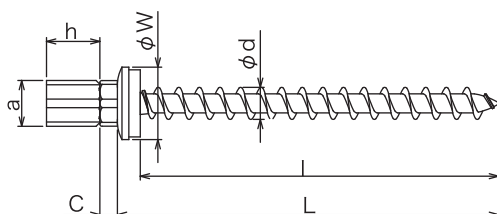
RED PiAS⁺ PAT[®]

No need to pre-drilling

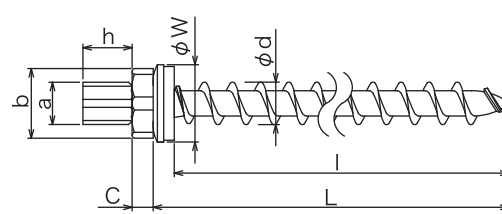


| Size | Quantity × small box | L | l (Thread) | a | h | b | c | φw | φd |
|-----------------------|-------------------------|----|-------------------|-----|-----|------|-----|------|-----|
| 4 × 35 | 400 × 6 | 35 | Fully threaded | 6.0 | 7.0 | 6.0 | 2.5 | 9.5 | 4.2 |
| 4 × 35 without washer | 500 × 6 | | | | | | | | |
| 4 × 50 | 300 × 6 | 50 | | | | | | | |
| 4 × 50 without washer | 400 × 6 | | | | | | | | |
| 5 × 60 | 250 × 6 | 60 | Fully threaded | 6.0 | 7.0 | 6.0 | 2.5 | 11.0 | 5.0 |
| 6 × 75 | 200 × 6 | 75 | Fully threaded | 6.0 | 7.0 | 10.0 | 3.0 | 11.0 | 6.3 |

(4mm·5mm)

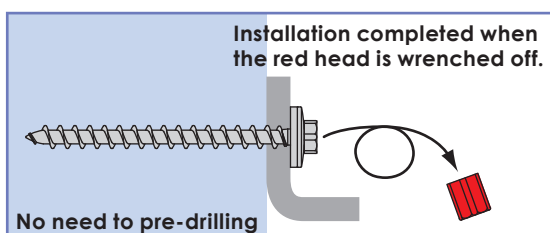


(6mm)



Self-torque-control system

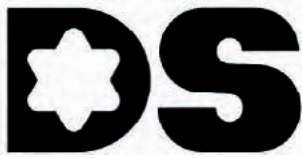
The red head has a torque-control function for driving torque, and therefore the Red PiAS is fastened without torsional failure even into fragile material.



New design

For edged crest threads designed specially, the high-holding power is guaranteed even for fragile wall material. No board crack occurs, which sometimes occurs in case of a nail hammered into, and the Red PiAS is available for thin panels.


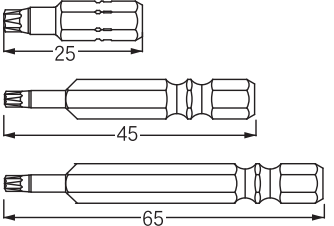
- The Red PiAS can be used up to 15mm from the edge of ALC panel, and it contributes to expansion of usage range.
- This is pulled off by reverse-rotating when fastened into wrong place.



Diamond recess special [International patent]

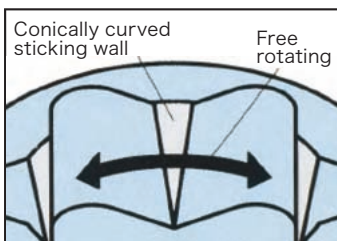
Stick-fitting and hi-torque screw hole



| Diameter | M3 | M3.5 | M4(4.5) | M5 | M6 |
|--|---|-------|---------|-------|-------|
| Recess size | DS-10 | DS-15 | DS-20 | DS-25 | DS-30 |
|  | 2.82 | 3.35 | 3.94 | 4.52 | 5.61 |
| Length |  | | | | |

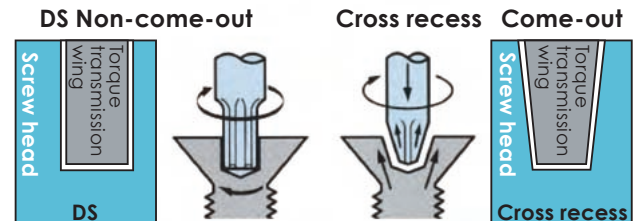
| Type | Size | Quantity × small box | Thickness applied | Surface treatment | SUS305 |
|------------|--------|----------------------|-------------------|-----------------------------|------------|
| PAN | 4 × 13 | 1,000 × 10 | 1.2~3.6 | Trivalent chrome (White) | Passivated |
| | 4 × 16 | | | | |
| | 4 × 19 | 700 × 10 | | | |
| | 4 × 25 | 500 × 10 | | | |
| Flat | 4 × 13 | 1,000 × 10 | 1.2~3.6 | Trivalent chrome (White) | |
| | 4 × 16 | | | | |
| | 4 × 19 | 500 × 10 | | | |
| | 4 × 25 | | | | |
| Wing screw | 4 × 28 | 500 × 10 | 2.3~3.1 | Trivalent chrome (White) | |
| | 4 × 45 | 600 × 4 | | | |
| For ALC | 5 × 60 | 300 × 4 | 2.3~4.4 | Hexavalent chrome | |

Mechanism of special tight-fitting screw hole



Torque transmission wings of non come-out with no deformation causes long bit-life, compared with cross recess or Pozzi-drive which stick-wall is damaged by fastening torque strength.

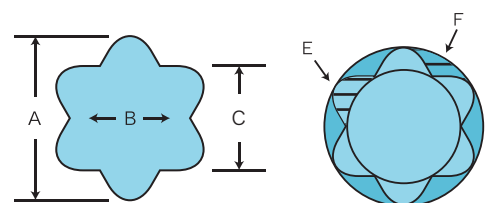
Solution of come-out



Torque transmission walls are parallel with the axis, so no coming up the bit by rotating, resulting in higher workability and less working load.

Configuration of DS

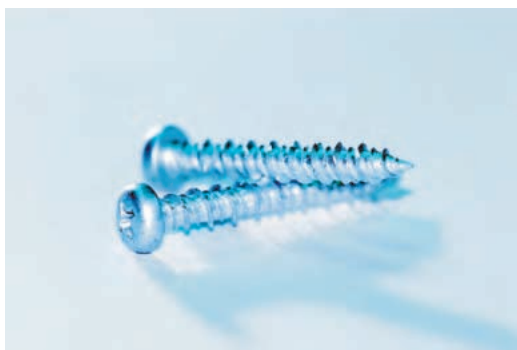
- The length A and B is same as the one of hexalobular socket standardized in JIS, and in addition, the lines specified in C are parallel with each other so that DS recess has higher pre-clinching. Hexalobular bit can be used to loose the DS socket screws.
- In JIS the area of part E on hexalobular socket is smaller than one of the part F so that the bit for hexalobular socket doesn't reach to enough strength for case-hardened screws. On the other hands, for DS recess, the part E is larger so that the duration of the bit life is dramatically longer.



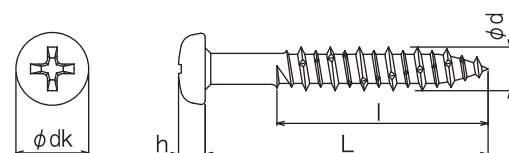
Safety



Pias con pan Ruspert silver



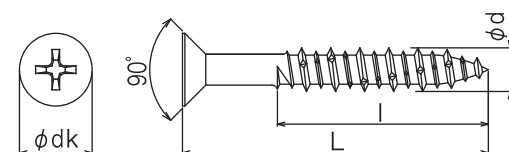
| Size | Quantity | L | I (Thread) | ϕdk | h | ϕd | Pre drilled holedia |
|--------|----------|------|----------------|-----------|-----|----------|---------------------|
| 4 × 25 | 9,000 | 25.0 | Fully threaded | 7.5 | 2.8 | 4.3 | 3.2~3.5 |
| 4 × 32 | 5,000 | 32.0 | | | | | |
| 4 × 45 | 4,000 | 45.0 | | | | | |
| 5 × 25 | 6,000 | 25.0 | Fully threaded | 9.0 | 3.3 | 5.4 | 4.3~4.5 |
| 5 × 35 | 4,000 | 35.0 | | | | | |
| 5 × 60 | 2,000 | 60.0 | | | | | |
| 6 × 40 | 2,000 | 40.0 | Fully threaded | 10.5 | 3.9 | 6.4 | 5.3~5.5 |



Pias con flat Ruspert silver



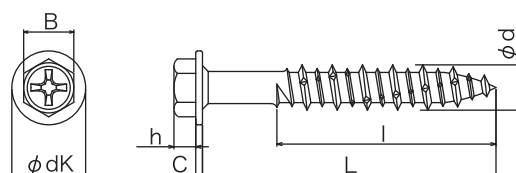
| Size | Quantity | L | I (Thread) | φ dk | φ d | Pre drilled holedia |
|---------|----------|-------|-------------------|------|-----|------------------------|
| 4 × 25 | 10,000 | 25.0 | Fully threaded | 7.0 | 4.3 | 3.2~3.5 |
| 4 × 32 | 7,000 | 32.0 | | | | |
| 4 × 45 | 4,000 | 45.0 | | | | |
| 5 × 25 | 7,000 | 25.0 | Fully threaded | 9.0 | 5.4 | 4.3~4.5 |
| 5 × 35 | 4,000 | 35.0 | | | | |
| 5 × 45 | 2,500 | 45.0 | | | | |
| 5 × 60 | 2,000 | 60.0 | 42.0 | | | |
| 6 × 25 | 4,000 | 25.0 | Fully threaded | 12.0 | 6.4 | 5.3~5.5 |
| 6 × 35 | 3,000 | 35.0 | | | | |
| 6 × 45 | 2,000 | 45.0 | | | | |
| 6 × 60 | 1,500 | 60.0 | 45.0 | | | |
| 6 × 70 | 1,000 | 70.0 | | | | |
| 6 × 75 | | 75.0 | | | | |
| 6 × 90 | | 90.0 | | | | |
| 6 × 100 | 700 | 100.0 | | | | |
| 6 × 110 | | 110.0 | | | | |
| 6 × 120 | 600 | 120.0 | | | | |



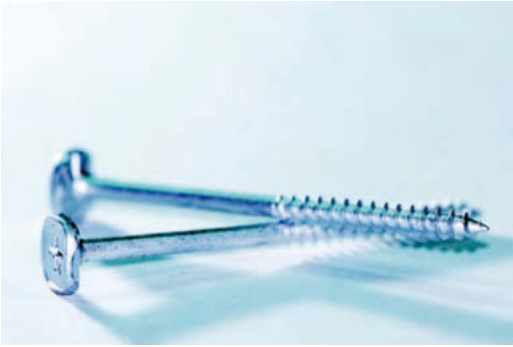
Pias con hex Ruspert silver



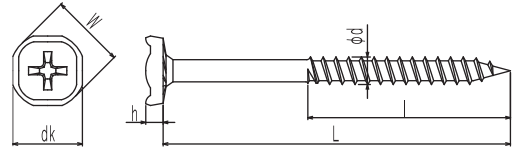
| Size | Quantity | L | I (Thread) | ϕdk | B | h | c | ϕd | Pre drilled holedia |
|--------|----------|------|----------------|-----------|-----|-----|-----|----------|---------------------|
| 5 × 25 | 5,000 | 25.0 | Fully threaded | 8.8 | 6.3 | 2.8 | 0.8 | 5.4 | 4.3~4.5 |
| 5 × 35 | 4,000 | 35.0 | | | | | | | |
| 6 × 45 | 2,000 | 45.0 | Fully threaded | 10.9 | 7.8 | 3.9 | 1.0 | 6.4 | 5.3~5.5 |
| 6 × 60 | 1,500 | 60.0 | | | | | | | |
| 6 × 70 | 1,000 | 70.0 | | | | | | | |



For ALC panel on wood Ruspert silver



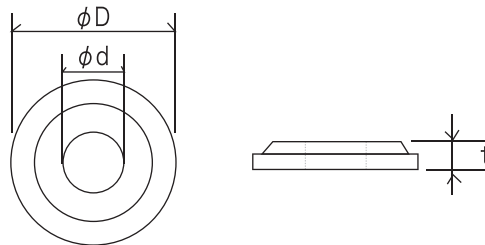
| Size | Quantity × small box | L | l (Thread) | dk | w | h | φ d |
|-------------|-------------------------|----|------------|------|------|-----|-----|
| 5 × 70 × 35 | 300 × 4 | 70 | 35.0 | 12.0 | 13.0 | 3.0 | 4.9 |



Washer Trivalent chrome(White)/SUS-304



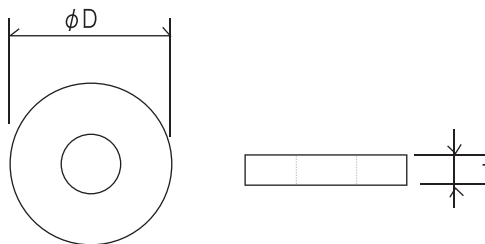
| Size | Quantity × plastic bag | φ D | φ d | t |
|---------|---------------------------|------|-----|-----|
| For 5mm | 1,000 | 14.0 | 5.0 | 2.2 |
| For 6mm | 500 | 17.0 | 6.5 | 2.7 |



Packing rubber(Black)



| Size | Quantity | φ D | φ d | t |
|---------|----------|------|-----|-----|
| For 4mm | 1,000 | 8.0 | 3.5 | 1.6 |
| For 5mm | | 11.0 | 4.5 | 2.5 |
| For 6mm | | 13.0 | 5.5 | 3.2 |

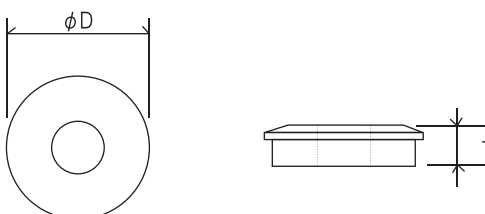


Bonded washer Zinc plated • SUS-304(grey rubber)



| Size | Quantity | φ D | t |
|---------|----------|-----|-----|
| For 5mm | | | 3.0 |
| For 6mm | | | |

Material : Neoplain





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Any change on specification permissible due to quality improvement.

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