

## P1208

DOWEL PINS

### Material

Mild steel (WS 1,0718, 9SMnPb28).

### Technical Notes

To DIN 1473 (GP 3, similar to ISO 8740).  
Full length grooves.  
Diameters tolerance: under  $\varnothing 4$  h9, over  $\varnothing 4$  tolerance h11.

Nominal length  $l_1$  does not include radiused ends.

### Tips

Three swaged grooves at  $120^\circ$  pitch all along the length.  
When the pin is driven into the drilled hole

the material displaced is forced back, to close up the groove and lock the pin into place. Allows the use of non precision holes.

Used to fix two or more components together with maximum rigidity.

| Order No.     | $d_1$<br>tol. h9/h11 | $l_1$<br>tol. js15 | $l_2$ | $d_2$ over grooves | Hole<br>min. | Hole<br>max. | Double shear<br>kN |
|---------------|----------------------|--------------------|-------|--------------------|--------------|--------------|--------------------|
| P1208.010-004 | 1.0                  | 4                  | 0.14  | 1.05               | 1.0          | 1.025        | 0.7                |
| P1208.010-005 | 1.0                  | 5                  | 0.14  | 1.05               | 1.0          | 1.025        | 0.7                |
| P1208.010-006 | 1.0                  | 6                  | 0.14  | 1.05               | 1.0          | 1.025        | 0.7                |
| P1208.010-008 | 1.0                  | 8                  | 0.14  | 1.05               | 1.0          | 1.025        | 0.7                |
| P1208.012-004 | 1.2                  | 4                  | 0.16  | 1.25               | 1.2          | 1.225        | 1.0                |
| P1208.012-005 | 1.2                  | 5                  | 0.16  | 1.25               | 1.2          | 1.225        | 1.0                |
| P1208.012-006 | 1.2                  | 6                  | 0.16  | 1.25               | 1.2          | 1.225        | 1.0                |
| P1208.012-008 | 1.2                  | 8                  | 0.16  | 1.25               | 1.2          | 1.225        | 1.0                |
| P1208.015-004 | 1.5                  | 4                  | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-005 | 1.5                  | 5                  | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-006 | 1.5                  | 6                  | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-008 | 1.5                  | 8                  | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-010 | 1.5                  | 10                 | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-012 | 1.5                  | 12                 | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-014 | 1.5                  | 14                 | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-016 | 1.5                  | 16                 | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-018 | 1.5                  | 18                 | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.015-020 | 1.5                  | 20                 | 0.20  | 1.60               | 1.5          | 1.525        | 1.6                |
| P1208.020-004 | 2.0                  | 4                  | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-005 | 2.0                  | 5                  | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-006 | 2.0                  | 6                  | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-008 | 2.0                  | 8                  | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-010 | 2.0                  | 10                 | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-012 | 2.0                  | 12                 | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-014 | 2.0                  | 14                 | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-016 | 2.0                  | 16                 | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-018 | 2.0                  | 18                 | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-020 | 2.0                  | 20                 | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-024 | 2.0                  | 24                 | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |
| P1208.020-026 | 2.0                  | 26                 | 0.25  | 2.15               | 2.0          | 2.025        | 2.85               |

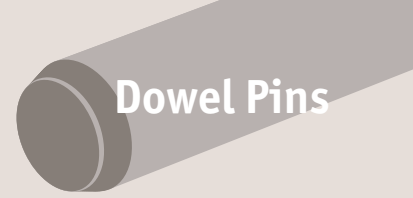


DOWEL PINS

| Order No.     | d <sub>1</sub><br>tol. h9/h11 | l <sub>1</sub><br>tol. js15 | l <sub>2</sub> | d <sub>2</sub> over grooves | Hole<br>min. | Hole<br>max. | Double shear<br>kN |
|---------------|-------------------------------|-----------------------------|----------------|-----------------------------|--------------|--------------|--------------------|
| P1208.020-028 | 2.0                           | 28                          | 0.25           | 2.15                        | 2.0          | 2.025        | 2.85               |
| P1208.020-030 | 2.0                           | 30                          | 0.25           | 2.15                        | 2.0          | 2.025        | 2.85               |
| P1208.025-006 | 2.5                           | 6                           | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-008 | 2.5                           | 8                           | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-010 | 2.5                           | 10                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-012 | 2.5                           | 12                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-014 | 2.5                           | 14                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-016 | 2.5                           | 16                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-018 | 2.5                           | 18                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-020 | 2.5                           | 20                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-024 | 2.5                           | 24                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-026 | 2.5                           | 26                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-028 | 2.5                           | 28                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.025-030 | 2.5                           | 30                          | 0.30           | 2.65                        | 2.5          | 2.525        | 4.25               |
| P1208.030-006 | 3.0                           | 6                           | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-008 | 3.0                           | 8                           | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-010 | 3.0                           | 10                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-012 | 3.0                           | 12                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-014 | 3.0                           | 14                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-016 | 3.0                           | 16                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-018 | 3.0                           | 18                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-020 | 3.0                           | 20                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-024 | 3.0                           | 24                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-026 | 3.0                           | 26                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-028 | 3.0                           | 28                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.030-030 | 3.0                           | 30                          | 0.40           | 3.20                        | 3.0          | 3.025        | 6.15               |
| P1208.040-006 | 4.0                           | 6                           | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-008 | 4.0                           | 8                           | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-010 | 4.0                           | 10                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-012 | 4.0                           | 12                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-014 | 4.0                           | 14                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-016 | 4.0                           | 16                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-018 | 4.0                           | 18                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-020 | 4.0                           | 20                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-024 | 4.0                           | 24                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-026 | 4.0                           | 26                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-028 | 4.0                           | 28                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-030 | 4.0                           | 30                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-032 | 4.0                           | 32                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-036 | 4.0                           | 36                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-040 | 4.0                           | 40                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-045 | 4.0                           | 45                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.040-050 | 4.0                           | 50                          | 0.50           | 4.25                        | 4.0          | 4.075        | 10.6               |
| P1208.050-008 | 5.0                           | 8                           | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-010 | 5.0                           | 10                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-012 | 5.0                           | 12                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-014 | 5.0                           | 14                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-016 | 5.0                           | 16                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-018 | 5.0                           | 18                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-020 | 5.0                           | 20                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-024 | 5.0                           | 24                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-026 | 5.0                           | 26                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-028 | 5.0                           | 28                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-030 | 5.0                           | 30                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-032 | 5.0                           | 32                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-036 | 5.0                           | 34                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-040 | 5.0                           | 40                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-045 | 5.0                           | 45                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.050-050 | 5.0                           | 50                          | 0.60           | 5.25                        | 5.0          | 5.075        | 16.5               |
| P1208.060-008 | 6.0                           | 8                           | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-010 | 6.0                           | 10                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-012 | 6.0                           | 12                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-014 | 6.0                           | 14                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-016 | 6.0                           | 16                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-018 | 6.0                           | 18                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-020 | 6.0                           | 20                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-024 | 6.0                           | 24                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-026 | 6.0                           | 26                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |



# Steel Grooved Pins



## Dowel Pins

| Order No.     | d <sub>1</sub><br>tol. h9/h11 | l <sub>1</sub><br>tol. js15 | l <sub>2</sub> | d <sub>2</sub> over grooves | Hole<br>min. | Hole<br>max. | Double shear<br>kN |
|---------------|-------------------------------|-----------------------------|----------------|-----------------------------|--------------|--------------|--------------------|
| P1208.060-028 | 6.0                           | 28                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-030 | 6.0                           | 30                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-032 | 6.0                           | 32                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-036 | 6.0                           | 36                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-040 | 6.0                           | 40                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-045 | 6.0                           | 45                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-050 | 6.0                           | 50                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.060-055 | 6.0                           | 55                          | 0.80           | 6.30                        | 6.0          | 6.075        | 6.0                |
| P1208.080-010 | 8.0                           | 10                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-012 | 8.0                           | 12                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-014 | 8.0                           | 14                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-016 | 8.0                           | 16                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-018 | 8.0                           | 18                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-020 | 8.0                           | 20                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-024 | 8.0                           | 24                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-026 | 8.0                           | 26                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-028 | 8.0                           | 28                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-030 | 8.0                           | 30                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-032 | 8.0                           | 32                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-036 | 8.0                           | 36                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-040 | 8.0                           | 40                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-045 | 8.0                           | 45                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-050 | 8.0                           | 50                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-055 | 8.0                           | 55                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-060 | 8.0                           | 60                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-065 | 8.0                           | 65                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.080-070 | 8.0                           | 70                          | 1.00           | 8.30                        | 8.0          | 8.090        | 40.5               |
| P1208.100-014 | 10.0                          | 14                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-016 | 10.0                          | 16                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-018 | 10.0                          | 18                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-020 | 10.0                          | 20                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-024 | 10.0                          | 24                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-026 | 10.0                          | 26                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-028 | 10.0                          | 28                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-030 | 10.0                          | 30                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-032 | 10.0                          | 32                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-036 | 10.0                          | 36                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-040 | 10.0                          | 40                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-045 | 10.0                          | 45                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-050 | 10.0                          | 50                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-055 | 10.0                          | 55                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-060 | 10.0                          | 60                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-065 | 10.0                          | 65                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-070 | 10.0                          | 70                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-075 | 10.0                          | 75                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.100-080 | 10.0                          | 80                          | 1.20           | 10.35                       | 10.0         | 10.09        | 63.2               |
| P1208.120-014 | 12.0                          | 14                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-016 | 12.0                          | 16                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-018 | 12.0                          | 18                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-020 | 12.0                          | 20                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-024 | 12.0                          | 24                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-026 | 12.0                          | 26                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-028 | 12.0                          | 28                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-030 | 12.0                          | 30                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-032 | 12.0                          | 32                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-036 | 12.0                          | 36                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-040 | 12.0                          | 40                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-045 | 12.0                          | 45                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-050 | 12.0                          | 50                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-055 | 12.0                          | 55                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-060 | 12.0                          | 60                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-065 | 12.0                          | 65                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-070 | 12.0                          | 70                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-075 | 12.0                          | 75                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |
| P1208.120-080 | 12.0                          | 80                          | 1.60           | 12.35                       | 12.0         | 12.11        | 91                 |

DOWEL PINS