

# Configurable Plates - Pre-Hardened Steel

G-STAR / PX5 / NAK55

### Features of G-STAR

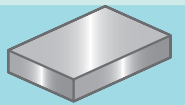
Martensitic Free-Cutting Pre-Hardened Stainless Steel with good corrosion resistance. Excels in machinability. Made into high hardness steel by quench and temper. (1,030°C Quench Hardness 48HRC)

### Features of PX5

Pre hardened SCM steel alloy with good machinability and toughness.

### Features of NAK55

Free cutting pre hardened steel alloy with excellent machinability. Smooth machined surfaces facilitate grinding machining afterward.



6-Surface Milled

RoHS10

| Part Number | Material | Hardness |
|-------------|----------|----------|
| PG-STARF    | G-STAR   | 33~37HRC |
| PPX5F       | PX5      | 30~33HRC |
| PNAK55F     | NAK55    | 37~43HRC |

6-Surface Milled

| Type              | ① Plate Thickness Tolerance | ② A, B Dimension Tolerance | 1mm Increment |        |      |
|-------------------|-----------------------------|----------------------------|---------------|--------|------|
|                   |                             |                            | A             | B      | T    |
|                   |                             |                            | A ≥ B         |        |      |
| PG-STARF<br>PPX5F | P<br>Q<br>N<br>M            | P<br>Q<br>N<br>M           | 50~500        | 20~200 | 5~40 |
|                   |                             |                            | 50~300        |        |      |

#### ① Plate Thickness Tolerance

| P         | Q      | N    | M      |
|-----------|--------|------|--------|
| +0.1~+0.3 | 0~+0.2 | ±0.1 | -0.2~0 |

#### ② A, B Dimension Tolerance

| Type            | PG-STARF, PPX5F |        |       |        | PNAK55F   |        |      |        |
|-----------------|-----------------|--------|-------|--------|-----------|--------|------|--------|
|                 | P               | Q      | N     | M      | P         | Q      | N    | M      |
| A, B Dimension  |                 |        |       |        |           |        |      |        |
| 250mm or Less   | +0.1~+0.3       | 0~+0.2 | ±0.1  | -0.2~0 | +0.1~+0.3 | 0~+0.2 | ±0.1 | -0.2~0 |
| 250.5mm or More | +0.1~+0.6       | 0~+0.5 | ±0.25 | -0.5~0 |           |        |      |        |

#### Precision Standards

(Max. Value)

| Item  | Standard Value  |      |
|---|-----------------|------|
| Thickness Parallelism (per 100mm)             | 0.05            |      |
| Flatness (per 100mm)                          | T5~7            | 0.1  |
|   | T8~15           | 0.07 |
|   | T16~25          | 0.05 |
|   | T26~            | 0.05 |
| G-STAR<br>PX5 Perpendicularity of Datum Plane | 0.015 per 100mm |      |
| NAK55 Each Plane Perpendicularity             | 0.015 per 100mm |      |
| Circumference Chamfering                      | C0.2~C0.5       |      |

Ordering Example: **Part Number** - **A** - **B** - **T**

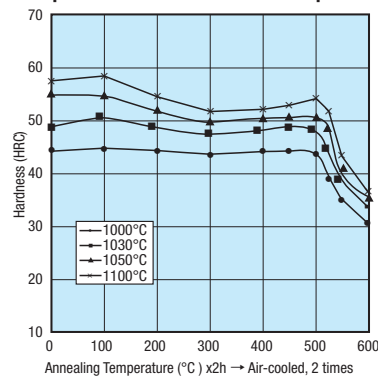
**Type** | **Plate Thickness Tolerance** | **A, B Dimension Tolerance**

**PG-STARF** | **Q** | **M** - 255 - 155 - 18

#### Corrosion Resistance (Reference)

| Material | 1%HNO <sub>3</sub> 24h at Room Temperature | Distilled Water 24h at Room Temperature |
|----------|--|---|
| G-STAR   | 9.2g/m <sup>2</sup> h                      | 0g/m <sup>2</sup> h                     |
| PX5      | 16.2g/m <sup>2</sup> h                     | 0.01g/m <sup>2</sup> h                  |
| NAK55    | 18.2g/m <sup>2</sup> h                     | 0.01g/m <sup>2</sup> h                  |

#### Temperature of Quench and Temper of G-STAR



Alterations: **Part Number** - **A** - **B** - **T** - (CSC, CBC)

**PPX5FNN** - 300 - 155 - 20 - CSC

| Alterations  | Circumference Chamfering  |  |
|--------------|---|--|
|              |   |  |
| <b>Code</b>  | <b>CSC</b>  | <b>CBC</b>   |
| <b>Spec.</b> | Reduce the circumference chamfering dimension.<br>Standard C0.2 ~ C0.5 → C0.1 or Less | Increase the circumference chamfering dimension.<br>Standard C0.2 ~ C0.5 → C0.5~C1.0 |

(Ex.) For PG-STARFQM-255-165-18

A Dimension x Area Unit Price = Price

| Part Number | A       | B     | T | 5 | 6 | 7, 8 | 9, 10 | 11, 12 | 13-15 | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 |  |  |  |
|-------------|---------|-------|---|---|---|------|-------|--------|-------|-------|-------|-------|-------|-------|--|--|--|
| PG-STARF□□  | 50~75   | 20-25 | T |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 50~75   | 26-40 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 50~75   | 41-60 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 61~75   | 61-80 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 81~100      | 81-100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 101~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 101~125     | 101-125 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 126~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 126~200     | 126-150 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 151~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     | 151-160 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 161~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 161~200     | 161-200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |

| Part Number | A       | B     | T | 5 | 6 | 7, 8 | 9, 10 | 11, 12 | 13-15 | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 |  |  |  |
|-------------|---------|-------|---|---|---|------|-------|--------|-------|-------|-------|-------|-------|-------|--|--|--|
| PPX5F□□     | 50~75   | 20-25 | T |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 50~75   | 26-40 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 50~75   | 41-60 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 61~75   | 61-80 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 81~100      | 81-100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 101~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 101~125     | 101-125 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 126~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 126~200     | 126-150 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 151~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     | 151-160 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 161~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 161~200     | 161-200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~500     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |

| Part Number | A       | B     | T | 5 | 6 | 7, 8 | 9, 10 | 11, 12 | 13-15 | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 |  |  |  |
|-------------|---------|-------|---|---|---|------|-------|--------|-------|-------|-------|-------|-------|-------|--|--|--|
| PNAK55F□□   | 50~75   | 20-25 | T |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 50~75   | 26-40 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 50~75   | 41-60 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 61~75   | 61-80 |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 76~100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 101~200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
|             | 201~300 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 81~100      | 81-100  |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 101~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~300     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 101~125     | 101-125 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 126~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~300     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 126~200     | 126-150 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~300     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 151~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~300     | 151-160 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 161~200     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~300     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 161~200     | 161-200 |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |
| 201~300     |         |       |   |   |   |      |       |        |       |       |       |       |       |       |  |  |  |