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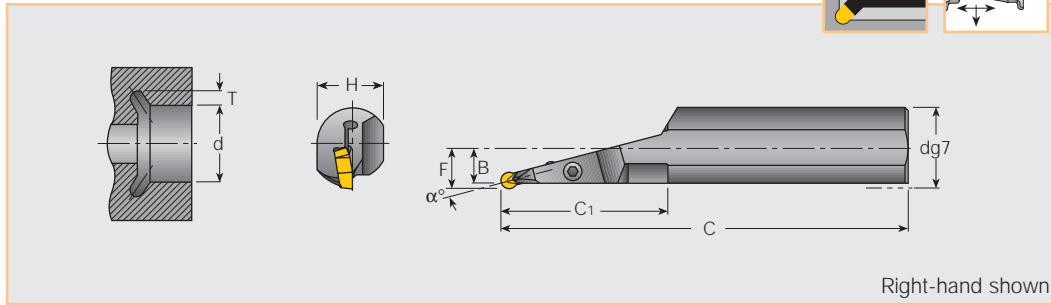
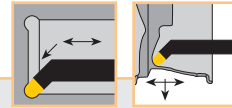
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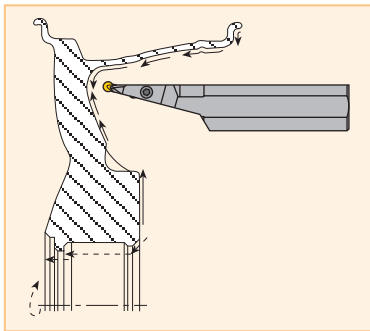
Internal Turning of Aluminum Wheels



GHIUR/L...A

| W | ød | Designation | D min | T max | C | C ₁ | B | F | H | α° | Inserts |
|------|------|----------------------|--------------|--------------|------|----------------|-------|-------|------|-------|--|
| .315 | 2.00 | GHIUR/L 50.8-15A-8 | 3.54 7.87 | .039 .079 | 14.0 | 3.15 | .906 | 1.022 | .906 | 15° | GIPA 8.00-4.00 GIDA 80-40 |
| .315 | 2.00 | GHIUR/L 50.8-27.5A-8 | 4.02 7.87 | .157 .197 | 14.0 | 3.15 | 1.102 | 1.187 | .906 | 27.5° | GIPA 8-35V-1.2 GIPA 8.00-4.00 GIDA 80-40 |

Screw: SR M6x25. Hex key: HW 5.
For inserts, see [pages D9-11](#).



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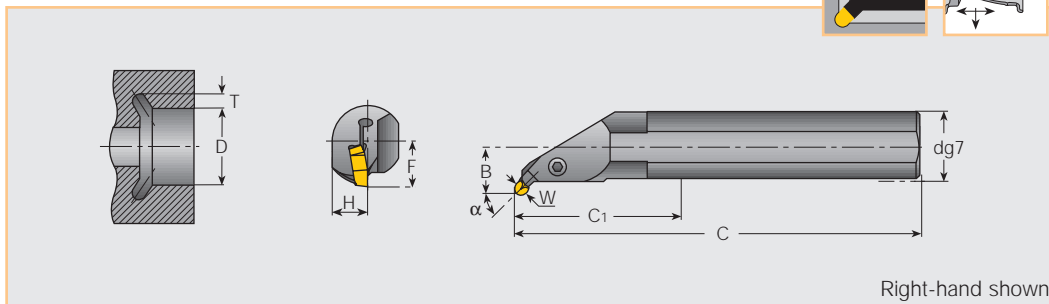
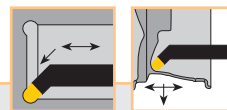
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Internal Turning of Aluminum Wheels



GHIUR/L...U

| W | ød | Designation | Dmin | Tmax | C | C ₁ | B | F | H | α° | Inserts |
|------|------|------------------|------|------|------|----------------|-------|-------|------|-----|------------------|
| .252 | 1.50 | GHIUR/L 38.1U-6 | 2.76 | .000 | 14.0 | 3.00 | .936 | .971 | .669 | 45° | GIPA 6 |
| | | | 7.87 | .079 | | | | | | | |
| .252 | 2.00 | GHIUR/L 50.8U-6 | 2.36 | .236 | 14.0 | 2.95 | 1.212 | 1.246 | .906 | 45° | |
| | | | 7.87 | .236 | | | | | | | |
| .315 | 1.50 | GHIUR/L 38.1U-8A | .268 | .020 | 14.0 | 3.05 | .978 | 1.024 | .669 | 45° | GIPA 8 GIDA 8 |
| | | | 7.87 | .110 | | | | | | | |
| .315 | 2.00 | GHIUR/L 50.8U-8 | 2.28 | .102 | 14.0 | 3.15 | 1.190 | 1.236 | .906 | 45° | |
| | | | 7.87 | .236 | | | | | | | |

Supplied keys: Torx key T-20/5.

Screw: SR M6x16

Hex key: HW 5.

For inserts, see [pages D9-11](#).

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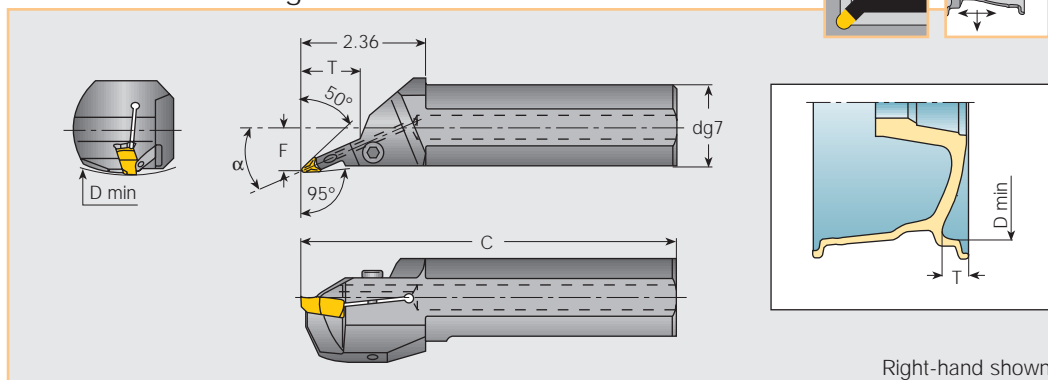
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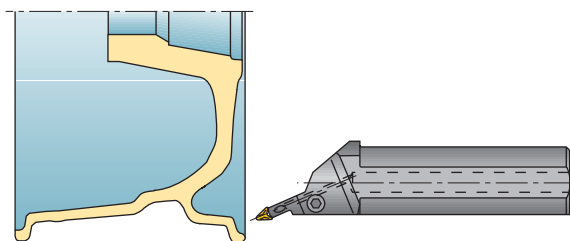
External and Internal Holders for Profiling



GHIUR/L...35V

| W | D | Designation | Dmin | Tmax | C | F | α° | Screw | Seal | Insert |
|------|-----|-----------------------|------|------|------|------|----------------|----------|--------|--|
| .315 | 1.5 | GHIUR/L 38.1-22.5A-8V | 11.8 | 1.12 | 10.0 | .798 | 22.5 | SR M6X25 | PL 150 | GIPA 8.00-4.00 GIPA 8-35V GIDA 80-40 |

Supplied keys: Hex key: Hw 5
For inserts, see [pages D9-11](#).



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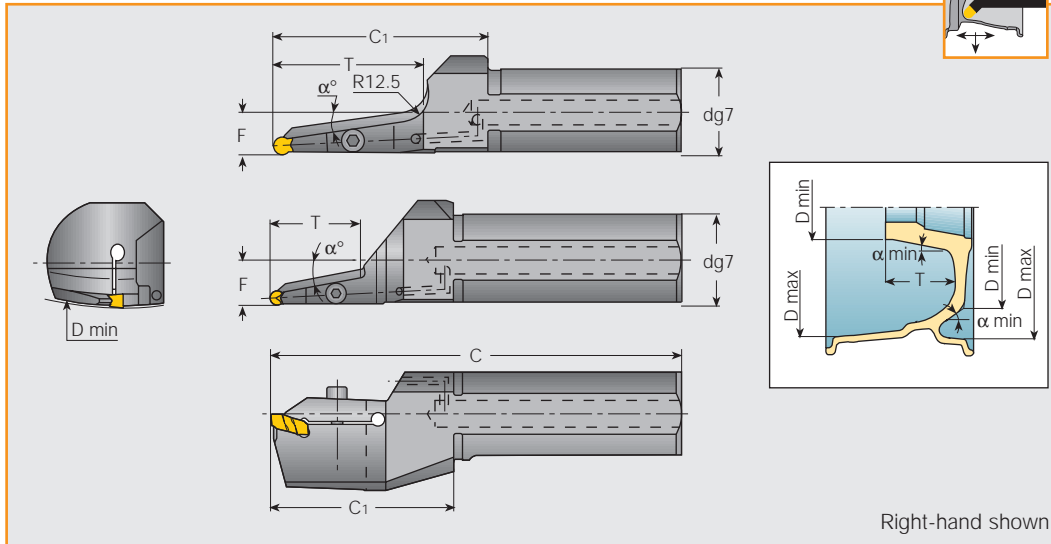
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Internal Turning Aluminum Wheels



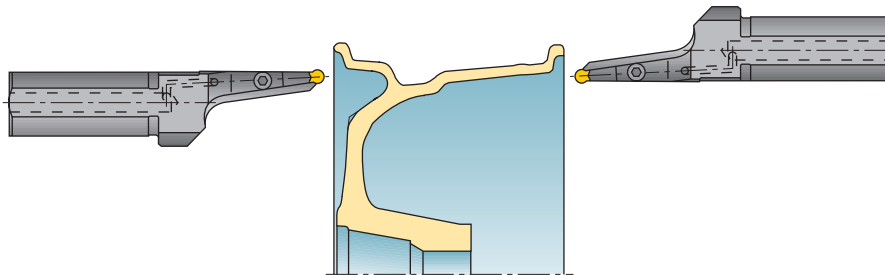
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GHIFR/L

| W | D | Designation | Dmin | Dmax | C | C1 | F | α° | Screw | Hex Key | Seal | Insert |
|---|-----|--------------------|------|------|----|------|------|----|----------|---------|--------|--|
| 6 | 1.5 | GHIFR/L 38.1-10A-6 | 11.8 | 14.2 | 12 | 3.15 | .720 | 10 | SR M5X25 | HW 4 | PL 150 | GIPA 6.00-3.00 |
| 8 | 1.5 | GHIFR/L 38.1-8A-8 | 11.8 | 14.2 | 13 | 3.94 | .728 | 8 | SR M6X25 | HW 5 | PL 150 | GIPA 8.00-4.00 GIPA 8-35V GIDA 80-40 |

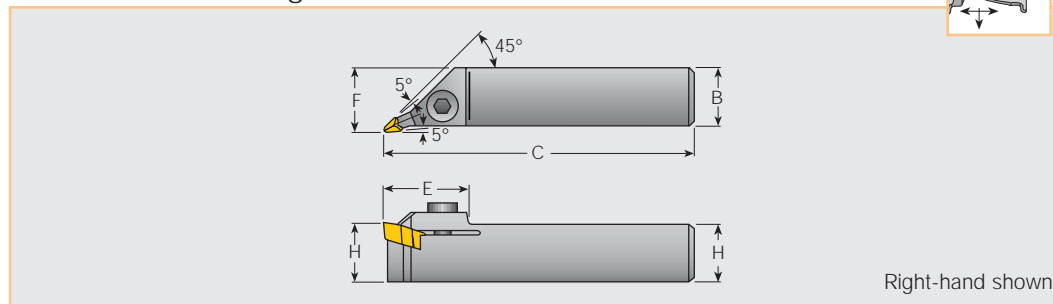
For inserts, see [page D9-11](#)



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External and Internal Holders for Profiling

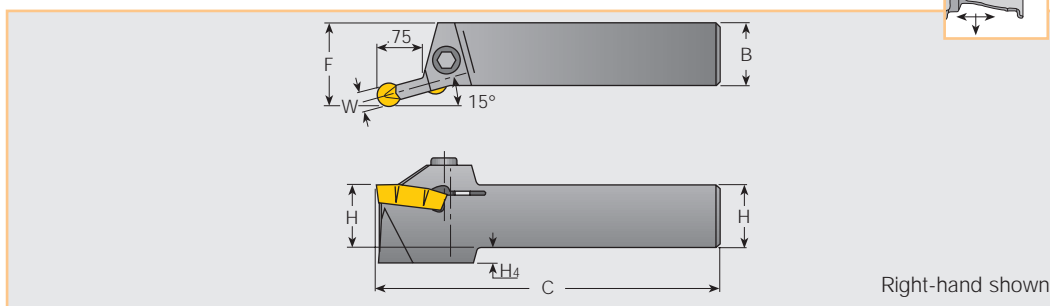


GHVR/L

| Designation | HxB | C | F | E | Screw | Key | Inserts |
|---------------|-----------|------|------|------|----------|------|---------------|
| GHVR/L 25.4-8 | 1.00x1.00 | 5.90 | 1.14 | 1.61 | SR M6x25 | HW-5 | GIPA 8-35-1.2 |

For inserts, see [pages D9-11](#).

GHDKR/L



GHDKR/L-8 (Internal)

| W | Designation | H x B | C | F | H ₄ | Screw | Hex key | Inserts |
|------|-------------------------------|-----------|-----|-------|----------------|----------|---------|----------------------------|
| .236 | GHDKR/L 25.4-6 ⁽¹⁾ | 1.00x1.00 | 6.0 | 1.197 | .236 | SR M6x25 | HW-5 | GIPA 6.00-3.00 |
| .315 | GHDKR/L 25.4-8 | 1.00x1.00 | 6.0 | 1.197 | .236 | SR M6x25 | HW-5 | GIDA 80-40 |
| .315 | GHDKR/L 31.7-8 | 1.25x1.25 | 7.0 | 1.450 | — | SR M6x25 | HW-5 | GIPA 8.00-4.00 GDMY 840 |

For inserts, see [pages D9-11](#).

⁽¹⁾ On request.

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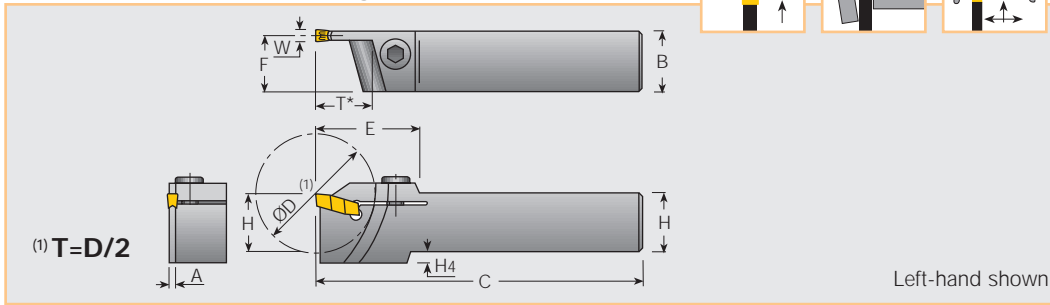
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External Deep Machining



GHGR/L

| W | Dmax ⁽¹⁾ | Designation | HxB | C | F | A | E | Screw | Key | Inserts |
|-----------|---------------------|-----------------|-----------|------|------|------|------|----------|------|----------|
| .157-.196 | 2.00 | GHGR/L 25.4-425 | 1.00x1.00 | 6.0 | .931 | .140 | 1.60 | SR M6x25 | HW-5 | GIPA 4 |
| .196-.252 | 2.00 | GHGR/L 25.4-5 | 1.00x1.00 | 6.0 | .918 | .167 | 1.60 | SR M6x25 | HW-5 | GIPA 5/6 |
| .196-.252 | 2.00 | GHGR/L 31.7-5 | 1.25x1.25 | 7.0 | 1.17 | .167 | 1.60 | SR M6x25 | HW-5 | GIPA 5/6 |
| .236-.252 | 2.36 | GHGR/L 25.4-630 | 1.00x1.00 | 6.0 | .893 | .212 | 1.76 | SR M6x25 | HW-5 | GIPA 6 |
| .236-.252 | 2.52 | GHGR/L 31.7-632 | 1.25x1.25 | 7.68 | 1.16 | .208 | 1.93 | SR M6x25 | HW-5 | GIPA 6 |

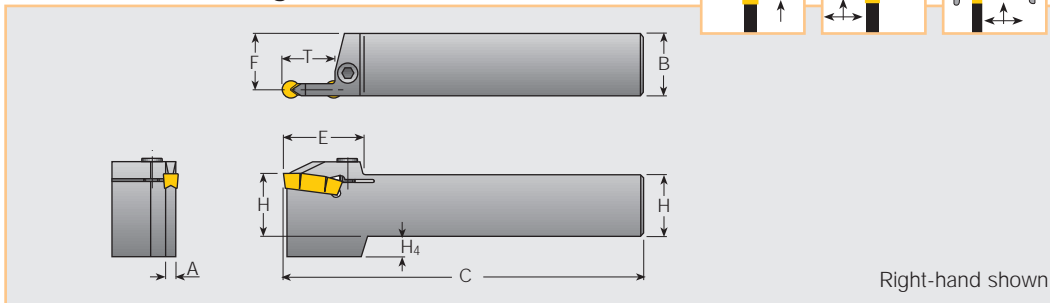
⁽¹⁾ For maximum depth capacity on diameters larger than ØD, see chart on [page C8](#).

For machining depth over .51 inch, a single-ended insert is required (GIM, GIMF, GIMY).

* T=Max depth capacity.

For inserts, see [pages D9-10](#).

External Machining of Aluminum Wheels



GHDR/L

| W | T | Designation | HxB | C | F | A | E | H ₄ | Screw | Hex key | Inserts |
|-----------|-----|-------------------------------|-----------|-----|-------|------|------|----------------|----------|---------|-------------|
| .260-.327 | 1.0 | GHDR/L 25.4-8 | 1.00x1.00 | 6.0 | .884 | .232 | 1.58 | 3.0 | SR M6x25 | HW 5 | GIPA/GIDA 8 |
| .260-.327 | 1.0 | GHDR/L 31.7-8 | 1.25x1.25 | 7.0 | 1.134 | .232 | 1.58 | — | SR M6x25 | HW 5 | |
| .315 | 1.0 | GHDR/L 25.4-8A ⁽¹⁾ | 1.00x1.00 | 6.0 | .884 | .232 | 1.59 | 3.0 | SR M6x25 | HW 5 | GIDA 80-40 |
| .315 | 1.0 | GHDR/L 31.7-8A ⁽¹⁾ | 1.25x1.25 | 6.7 | 1.133 | .232 | 1.59 | — | SR M6x25 | HW 5 | |

⁽¹⁾ Upper jaw deflects chips.

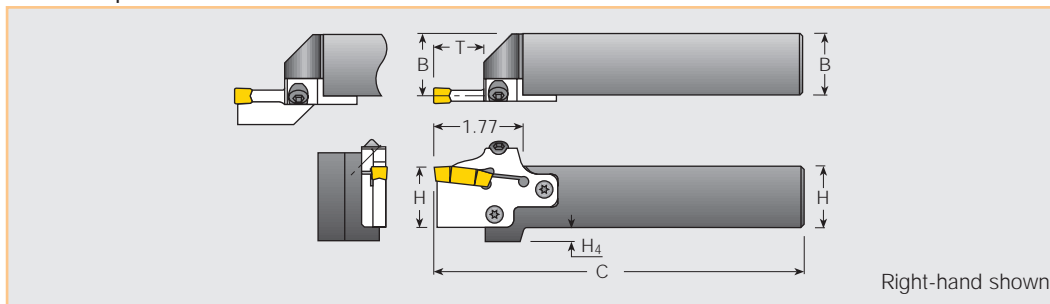
Upper jaw is coated with a hard layer.

Use Insert GIDA-80-40 only, see [page D11](#).

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External and Face Machining Holders for Adaptors GADR/L and GAFG

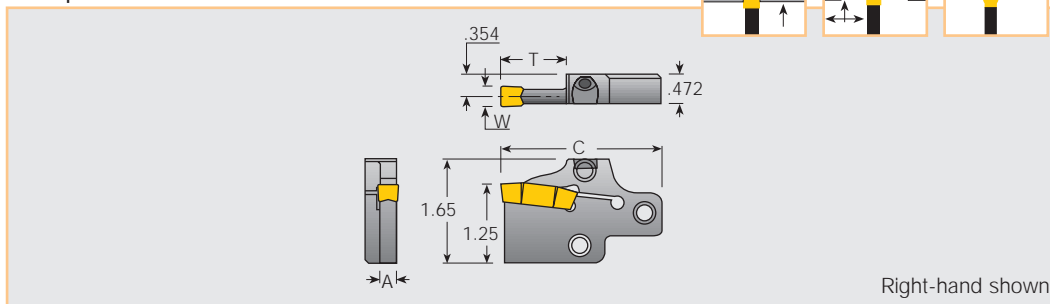


GHAR/L-8

| Designation | HxB | C | H ₄ | Adaptor for Turning & Grooving | T | Clamp Screw | Lock Screws | Hex Key | Torx Key |
|-------------|-----------|-----|----------------|--------------------------------|------|-------------|-------------|---------|----------|
| GHAR/L 25-8 | 1.00x1.00 | 5.9 | .181 | .140 | 1.00 | SR M6x25 | SR 14-519 | HW-5 | T20/5 |
| GHAR/L 32-8 | 1.25x1.25 | 6.7 | .167 | .167 | 1.00 | SR M6x25 | SR 14-519 | HW-5 | T20/5 |

Adaptors to be ordered separately.
For face machining adaptors, see [page G22](#).

External Machining Adaptors GADR/L



GADR/L-8

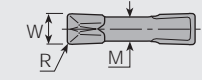
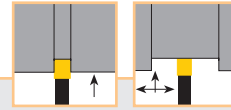
| W | T | Designation | A | L | Inserts |
|-----------|------|-------------|------|------|--|
| .260-.327 | 1.00 | GADR/L-8 | .236 | 2.48 | GIF 8/10 GIDA 8 GIPA 8 GDMU GDMY 8 |

For inserts, see [pages C75-76, C79, C83, C88, C97, D11](#).

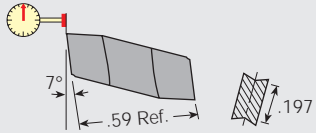
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Inserts for External Machining of Aluminum



Repeatability
±.001



- Precision-ground
- Double-ended
- Polished to avoid built-up edge
- Medium-to-high feeds

GIPA

| W±.0008 | Designation | R±.001 | M | Recommended Machining Conditions for Turning ⁽²⁾ | | | |
|---------|----------------|--------|------|---|-----------------------|------------|--------------|
| | | | | Material | Vc (sfm) IC20 | f (ipr) | ap (inch) |
| .118 | GIPA 3.00-0.20 | .008 | .094 | ● Aluminum ● Stainless Steel | Up to 9900 115-180 | .005-.009 | .016-.079 |
| .157 | GIPA 4.00-0.40 | .016 | .126 | | | .006-.011 | .020-.098 |
| .197 | GIPA 5.00-0.40 | .016 | .157 | | | .006-.013 | .020-.118 |
| .232 | GIPA 6.00-0.40 | .016 | .189 | | | .006-.016 | .020-.140 |

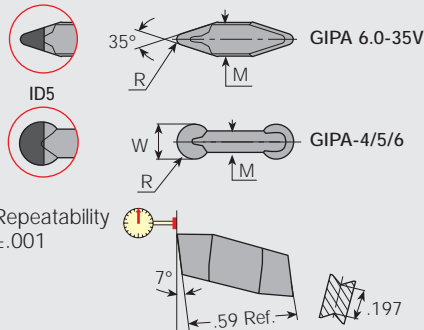
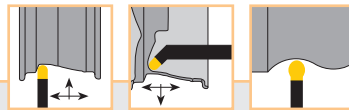
● Aluminum ● Stainless Steel
⁽²⁾ For grooving, reduce cutting speed by 30% and feed by 50%.

Technical information and detailed cutting data on [pages C153-154](#).

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Inserts for Machining Aluminum Wheels



Repeatability
±.001

GIPA-CB



- Precision-ground
- Polished to avoid built-up edge
- Medium-to-high feeds

GIPA-35V



GIPA-YZ



GIPA

| W±.0008 | Designation | R±.001 | M | Recommended Machining Conditions for Turning ⁽¹⁾ | | | | |
|---------|---------------------------------|--------|------|---|----------------------|--------------|------------|--------------|
| | | | | Material | Vc (sfm) IC20/IC4 | ID5 | f (ipr) | ap (inch) |
| .157 | GIPA 4.00-2.00 | .079 | .126 | | | | .005-.011 | .008-.098 |
| .197 | GIPA 5.00-2.50 | .098 | .130 | ● | Up to 8200 | Up to 10,000 | .007-.013 | .008-.118 |
| .236 | GIPA 6.00-3.00 | .118 | .118 | ● | 115-180 | | .008-.018 | .008-.189 |
| .236 | GIPA 6.00-3.00YZ | .118 | .189 | | | | .008-.016 | .008-.189 |
| .236 | GIPA 6.00-3.00CB ⁽²⁾ | .118 | .118 | ● | Up to 8200 | Up to 10,000 | .008-.018 | .008-.118 |
| .236 | GIPA 6.0-35V-0.8 | .031 | .157 | | | | .008-.045 | .008-.118 |

● Aluminum

● Titanium base alloys

(1) For grooving, reduce cutting speed by 30% and feed by 50%.

(2) With chipformer. PCD inserts are single-ended.

Technical information and detailed cutting data on pages C153-154.

Grade Availability

| Designation | Grade | | |
|------------------|-------|-----|------------|
| | IC20 | IC4 | ID-5 (PCD) |
| GIPA 4.00-2.00 | ● | | — |
| GIPA 5.00-2.50 | ● | | ● |
| GIPA 6.00-3.00 | ● | ● | ● |
| GIPA 6.00-3.00CB | — | | ● |
| GIPA 6.0-35V-0.8 | ● | | ● |

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Full Radii and "V" Shape Inserts .315

GIPA 8.0-35V-1.2 35°
GIPA 8.00-4.00
GIDA 80-40CB ID-5 $R.157$
GIDA 80-40
 Repeatability $\pm .0010$
 10° 1.18 Ref. 7° $.252$

-35V

-CB

-YZ

35V-YZ

- PCD Inserts
- Precision ground
- Polished to avoid built-up edge
- Medium-to-high feeds

GIPA/GIDA

| W±.0008 | Designation | R±.002 M | Recommended Machining Conditions for Turning | | | | |
|---------|------------------|------------|--|-------------|--------------|-----------|-----------|
| | | | Material | Vc (sfm) | | f (ipr) | ap (inch) |
| | | | | IC20/IC4 | ID-5 | | |
| .315 | GIDA 80-40 | .157 .220 | ● | Up to 8,200 | Up to 10,000 | .008-.024 | .031-.189 |
| .315 | GIDA 80-40 YZ | .157 .220 | | | | .006-.018 | .031-.189 |
| .315 | GIDA 80-40CB | .157 .220 | | | | .008-.024 | .031-.189 |
| .315 | GIPA 8.00-4.00 | .157 .236 | | | | .008-.024 | .031-.189 |
| .315 | GIPA 8YZ-35V | .0315 .236 | | | | .006-.016 | .031-.189 |
| .315 | GIPA 8YZ-35V | .047 .236 | | | | .006-.016 | .031-.189 |
| .315 | GIPA 8.0-35V-1.2 | .118 .236 | | | | .008-.018 | .031-.189 |
| .315 | GIPA 8.0-35V-3.0 | .118 .236 | | | | .009-.022 | .031-.189 |

● Aluminum

⁽¹⁾ For grooving, reduce cutting speed by 30% and feed by 50%.

Technical information and detailed cutting data on [pages C153-154](#).

Grade Availability

| Designation | Grade | | |
|----------------|-------|-----|------------|
| | IC20 | IC4 | ID-5 (PCD) |
| GIPA 80-40 | ● | ● | ● |
| GIPA 8.00-4.00 | ● | | — |
| GIPA 8.0-35V | ● | | ● |

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