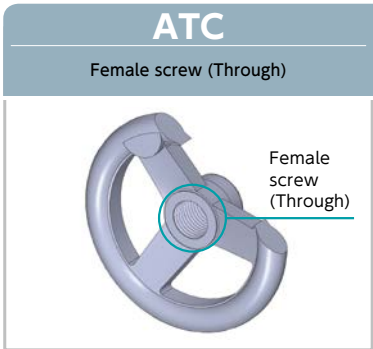
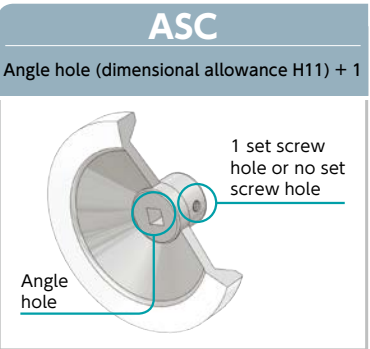
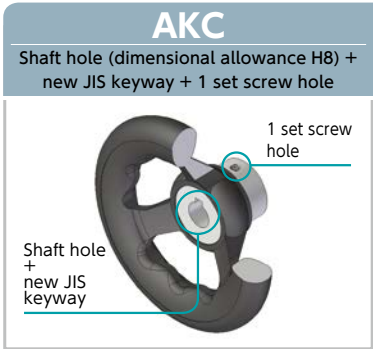
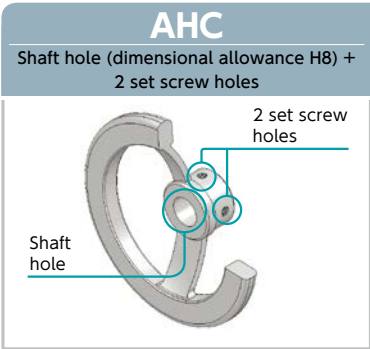


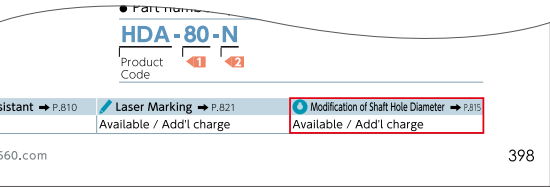
Service description

- Handle shaft hole will be processed.
- There are five processing types. Please select a desirable service according to your application.
- For details on dimensions, please refer to the processing type page.



Applicable Products

- Products in handwheel category are the target.
- Available / Add'l charge is displayed at the end of each product page for the target product.



- Target products vary depending on processing types. Please refer to the detailed page for each processing type.

Fees • Delivery

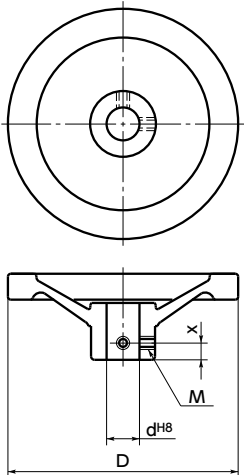
- Please feel free to contact us.

AHC Shaft hole (dimensional allowance H8) + 2 set screw holes

- Shaft hole (H8) and 2 set screw holes will be processed.

AHC Applicable Products

| Hub Material | Product Code | | | |
|-----------------|--------------|-----|----|---|
| Cast iron | PH | HSN | D | F |
| Aluminum | HDA | AV | AH | |
| Stainless Steel | PHS | HSM | | |



Dimension

- As for bore diameter d, its minimum and maximum bore diameters are set based on nominal handwheel sizes. Please specify d within the range. d can be specified in the unit of 1 mm.
- A set screw will be provided by adding **-P** to the end of the part number. **1 2**

Unit: mm

| Nominal size D | Bore diameter dH8 1 | |
|-------------------|-------------------------------|------|
| | min. | max. |
| 80 | 10 | 15 |
| 100 | 10 | 17 |
| 125 | 12 | 20 |
| 140 | 14 | 22 |
| 150 | 14 | 22 |
| 160 | 14 | 24 |
| 200 | 16 | 25 |
| 250 | 20 | 30 |
| 300 | 20 | 35 |
| 315 | 20 | 35 |

- Set screw: Screw diameter and position of a set screw hole will be determined by bore diameter.

Unit: mm

| d | | M | x* |
|------|------|-----|-----|
| min. | max. | | |
| 10 | 15 | M5 | 7.5 |
| 16 | 22 | M6 | 9 |
| 23 | 30 | M8 | 12 |
| 31 | 35 | M10 | 15 |

*Dimensions may vary depending on handwheel types.

Fees • Delivery

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Part number specification

PH-140-AHC-15-P

Handwheel
product
part number

Processing
type

1

2

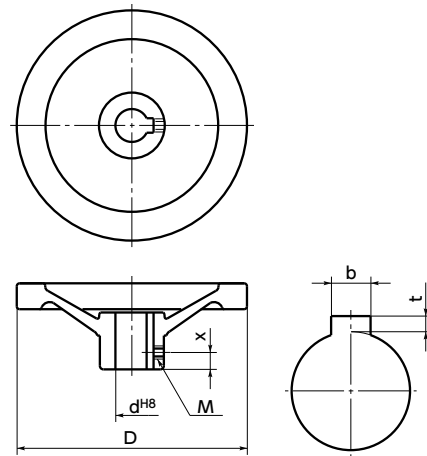
Please specify handwheel product part number, processing type and bore diameter.

AKC Shaft hole (dimensional allowance H8) + new JIS key + 1 set screw hole

- Shaft hole (H8) / new JIS keyway, and 1 set screw hole will be processed.
- Shaft hole diameter can be specified from standard bore diameters.

AKC Applicable Products

| Hub Material | Product Code | | | |
|-----------------|--------------|-----|----|---|
| Cast iron | PH | HSN | D | F |
| Aluminum | HDA | AV | AH | |
| Stainless Steel | PHS | HSM | | |



Dimensions

- Standard bore diameter d is set based on nominal handwheel sizes.
- A set screw will be provided by adding **-P** to the end of the part number.

Unit: mm

| Nominal size D | Standard Bore Diameter d ^{H8} |
|----------------|--|
| 80 | 10 · 11 · 12 |
| 100 | 10 · 11 · 12 · 14 |
| 125 | 12 · 14 · 15 · 16 · 17 |
| 140 | 14 · 15 · 16 · 17 · 18 |
| 150 | 14 · 15 · 16 · 17 · 18 · 19 |
| 160 | 14 · 15 · 16 · 17 · 18 · 19 · 20 |
| 200 | 16 · 17 · 18 · 19 · 20 · 21 |
| 250 | 20 · 21 · 22 · 24 · 25 |
| 300 | 20 · 21 · 22 · 24 · 25 · 28 · 30 |
| 315 | 20 · 21 · 22 · 24 · 25 · 28 · 30 |

- Keyway will be processed based on JIS B 1301.
- Screw diameter and position of a set screw hole will be determined by standard bore diameter.

Unit: mm

| Standard Bore Diameter d ^{H8} | Keyway | | | | Key | | Set screw x* |
|--|-----------------|-----------------|-----------------|-----------|-----------------------|----|--------------|
| | b | t | | | Nominal Dimension b×h | M | |
| | Basic Dimension | Allowance (JS9) | Basic Dimension | Allowance | | | |
| 10 · 11 · 12 | 4 | ±0.015 | 1.8 | | 4×4 | M5 | 7.5 |
| 14 · 15 | 5 | ±0.015 | 2.3 | +0.1 | 5×5 | M5 | 7.5 |
| 16 · 17 | 5 | ±0.015 | 2.3 | 0 | 5×5 | M6 | 9 |
| 18 · 19 · 20 · 21 · 22 | 6 | ±0.015 | 2.8 | | 6×6 | M6 | 9 |
| 24 · 25 · 28 · 30 | 8 | ±0.018 | 3.3 | +0.2 | 8×7 | M8 | 12 |

*Dimensions may vary depending on handwheel types.

Fees • Delivery

- Please feel free to contact us.

Part number specification

D-200-AKC 20-P

Handwheel product part number Processing type

Please specify handwheel product part number, processing type and bore diameter.

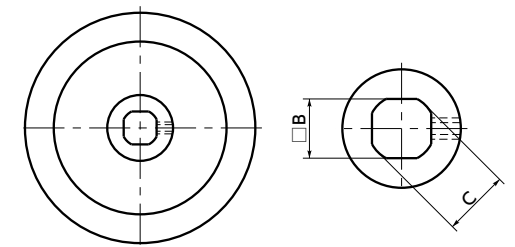
ASC Angle hole (dimensional allowance H11) + 1 set screw hole

- Angle hole (H11) and 1 set screw hole will be processed.
- Angle holes can be selected from standard angle diameters.
- With / without a set screw hole and/or set screw can be selected.

ASC — without set screw hole

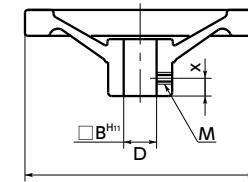
ASC-M — with a set screw hole

ASC-M-P — with a set screw hole and set screw



ASC Applicable Products

| Hub Material | Product Code | | | |
|-----------------|--------------|-----|----|---|
| Cast iron | PH | HSN | D | F |
| Aluminum | HDA | AV | AH | |
| Stainless Steel | PHS | HSM | | |



Dimension

- Standard angle hole diameter B is set based on nominal handwheel sizes.

Unit: mm

| Nominal size D | Standard angle hole diameter B ^{H11} |
|----------------|---|
| 80 | 6 · 8 · 10 · 11 · 12 |
| 100 | 6 · 8 · 10 · 11 · 12 |
| 125 | 12 · 13 · 14 |
| 140 | 12 · 13 · 14 |
| 150 | 12 · 13 · 14 |
| 160 | 14 · 15 · 17 |
| 200 | 17 · 19 |
| 250 | 19 · 22 |
| 300 | 19 · 22 |
| 315 | 19 · 22 |

- Corners of an angle hole are arcuately chamfered.
- Diameter and position of a set screw hole will be determined by standard angle hole diameter.

Unit: mm

| Standard angle hole diameter B ^{H11} | C | M | x* |
|---|-------|----|-----|
| 6 | 8.25 | M4 | 6 |
| 8 | 11.05 | M4 | 6 |
| 10 | 13.70 | M4 | 6 |
| 11 | 15.45 | M5 | 7.5 |
| 12 | 15.85 | M5 | 7.5 |
| 13 | 17.90 | M5 | 7.5 |
| 14 | 19.20 | M5 | 7.5 |
| 15 | 20.70 | M5 | 7.5 |
| 17 | 23.10 | M6 | 9 |
| 19 | 26.10 | M6 | 9 |
| 22 | 29.60 | M6 | 9 |

*Dimensions may vary depending on handwheel types.

Fees • Delivery

- Please feel free to contact us.

Part number specification

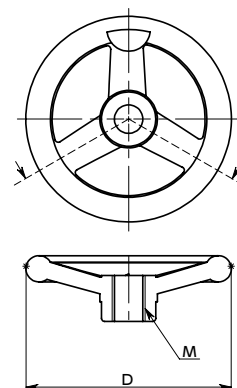
F-200-ASC 17 - M-P

Handwheel product part number Processing type

Please specify handwheel product part number, processing type, angle hole diameter, set screw hole, and with / without a set screw.

ATC Female screw (Through)

- Female screws (Through) will be processed.
- Screw diameters can be selected from standard screw diameters.




ATC Applicable Products

| Hub Material | Product Code | | | |
|-----------------|--------------|-----|----|---|
| Cast iron | PH | HSN | D | F |
| Aluminum | HDA | AV | AH | |
| Stainless Steel | PHS | HSM | | |

Dimension

- Standard screw diameter is set based on nominal handwheel sizes.

Unit: mm

| Nominal size D | Standard screw diameter M (coarse)  | | | | | |
|-------------------|---|-----|-----|-----|-----|-----|
| 80 | M10 | M12 | M14 | | | |
| 100 | M10 | M12 | M14 | M16 | | |
| 125 | M10 | M12 | M14 | M16 | | |
| 140 | | M12 | M14 | M16 | M20 | |
| 150 | | M12 | M14 | M16 | M20 | |
| 160 | | M12 | M14 | M16 | M20 | |
| 200 | | | | M16 | M20 | M24 |
| 250 | | | | M16 | M20 | M24 |
| 300 | | | | M16 | M20 | M24 |
| 315 | | | | M16 | M20 | M24 |

Fees • Delivery

- Please feel free to contact us.

Part number specification

D-160-ATC M16

Handwheel
product
part number

Processing
type 

Please specify handwheel product part number, processing type and screw diameter.