



KOWOO is the most competitive professional **cold forging manufacturer** in Korea since 1967.

KOWOO has the following vision and strategy.

- World class technology & Quality achievement.
- Continuous equipment investment & Exceeding customer`s expectation.
- Future value management.
- To be recognized by customer as a best supplier.

And **KOWOO**`s policy are

- Continuous drive towards “Zero Defects”
- Doing it right the “First Time”
- Prompt delivery of goods according to schedule.
- Continuous improvement on our technical know-how.

The followings are **KOWOO**`s contact points. Please do not hesitate to contact us.

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Merit of Cold Forging

1. **Durability** can be improved by making up the fibrous structure in metal flow which is generated along the outer shape of cold forging parts.
2. There is only **little loss** in material. Generally, it is below 10 % of material weight. (Benefit to reduce the cost of production)
3. As **mass production** can be possible by press working system, products with **high accuracy** are manufactured in volume. (Improvement in product accuracy and mass production)
4. After a stage of cold forging parts, the material becomes stiffening and its mechanical nature can be improved, so **low-grade material** can be available in this operation. (Retrenchment of expenditure in the cost price by using low-priced material)
5. As all the operation steps are done at room temperature, **superior surface** of the product without oxidization or de-carbonization can be obtained.
6. **Operating frequency and time** with lathe in the subsequent process -ing is extremely reduced.

Before Beginning

Cold forging is the best choice for the metal forming as a method of cost reduction.

We hope this book is a good guidance for the cold forging parts to you.

Thank you !



ITEM NO : FA01

- Name : Shaft for Seat Belt
- Weight : 119 grams/pcs
- Material : 10B35



ITEM NO : FA02

- Name : Connector
- Weight : 27 grams/pcs
- Material : 10B21





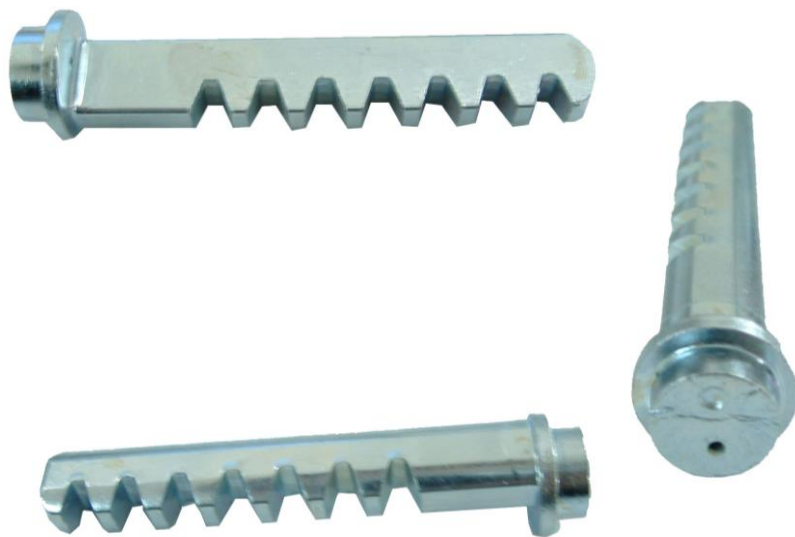
ITEM NO : FA03

- Name : Pinion Gear
- Weight : 108 grams/pcs
- Material : SPHC



ITEM NO : FA04

- Name : Clutch Roller
- Weight : 0.6 grams/pcs
- Material : SCM435



ITEM NO : FA05

- Name : Piston
- Weight : 50 grams/ pcs
- Material : 10B30



ITEM NO : FA06

- Name : Gear
- Weight : 40 grams/ pcs
- Material : 10B30



ITEM NO : FA07

- Name : Tread Head
- Weight : 75 grams/ pcs
- Material : SWCH8A



ITEM NO : FA08

- Name : Sleeve
- Weight : 44 grams/ pcs
- Material : SCM435H



ITEM NO : FA09

- Name : Piston Blank
- Weight : 290 grams/ pcs
- Material : SWCH10A



ITEM NO : FA10

- Name : Piston Blank
with Embo
- Weight : 523 grams/ pcs
- Material : SWCH10A





ITEM NO : FA11

- Name : Rear Piston
with Embo
- Weight : 165 grams/ pcs
- Material : SWCH10A



ITEM NO : FA12

- Name : Rear Piston
with Flower-Shaped
- Weight : 204 grams/ pcs
- Material : S10C



ITEM NO : FA13

- Name : Flange Nut
- Weight : 14 grams/pcs
- Material : SWCH25F



ITEM NO : FA14

- Name : Cross Nut
- Weight : 155 grams/pcs
- Material : SCM415H



ITEM NO : FA15

- Name : Body
- Weight : 67 grams/ pcs
- Material : SWCH10A



ITEM NO : FA16

- Name : Core
- Weight : 50 grams/ pcs
- Material : S15C



ITEM NO : FA17

- Name : Housing
- Weight : 98 grams/pcs
- Material : SWCH8A



ITEM NO : FA18

- Name : Solenoid Case
- Weight : 107 grams/pcs
- Material : SWCH10A



ITEM NO : FA19

- Name : Boss Torque Converter
- Weight : 148 grams/pcs
- Material : S35C



ITEM NO : FA20

- Name : Sleeve OD $\Phi 75$
- Weight : 700 grams/pcs
- Material : SCM420H



ITEM NO : FA21

- Name : Suspension Socket
- Weight : 275 grams/ pcs
- Material : SWCH25F



ITEM NO : FA22

- Name : Inner Bush
- Weight : 55 grams/ pcs
- Material : SWCH22A



ITEM NO : FA23

- Name : Bush-A
- Weight : 140 grams/pcs
- Material : SWCH10A



ITEM NO : FA24

- Name : Bush-B
- Weight : 207 grams/pcs
- Material : SWCH10A





ITEM NO : FA25

- Name : Bush Ring
- Weight : 80 grams/pcs
- Material : SWCH10A



ITEM NO : FA26



- Name : Rack Bush
- Weight : 415 grams/pcs
- Material : S20C



ITEM NO : FA27

- Name : Plugless Socket
with Rectangular Body
- Weight : 170 grams/ pcs
- Material : SWCH25F



ITEM NO : FA28

- Name : Plugless Socket
L114
- Weight : 885 grams/ pcs
- Material : S20C



ITEM NO : FA29

- Name : Plugless Socket with Hole
- Weight : 170 grams/ pcs
- Material : SWCH25F



ITEM NO : FA30

- Name : Plugless Socket with Round Body
- Weight : 177 grams/ pcs
- Material : SWCH25F





ITEM NO : FA31

- Name : Outer Socket Forged
- Weight : 448 grams/ pcs
- Material : SWCH22A



ITEM NO : FA32

- Name : Outer Socket Machined
- Weight : 275 grams/ pcs
- Material : SWCH22A



ITEM NO : FA33

- Name : Ball Tie Rod
- Weight : 322 grams/pcs
- Material : KNCH8S



ITEM NO : FA34

- Name : Steering Universal Joint
- Weight : 260 grams/pcs
- Material : STKM11A



ITEM NO : FA35

- Name : Steering Universal Joint with Trumpet-Shaped End



- Weight : 434 grams/ pcs



- Material : STKM13C



ITEM NO : FA36

- Name : Steering Universal Joint with Hole



- Weight : 176 grams/ pcs

- Material : STKM11A-E



ITEM NO : FA37

- Name : Steering Universal Joint with Gear
- Weight : 273 grams/ pcs
- Material : STKM12B



ITEM NO : FA38

- Name : Shaft Upper
- Weight : 442 grams/ pcs
- Material : STKM14A





ITEM NO : FA39

- Name : Steering Column with Spline
- Weight : 249 grams/ pcs
- Material : STKM13C



ITEM NO : FA40

- Name : Steering Column with Serration
- Weight : 609 grams/ pcs
- Material : STKM12B





ITEM NO : FA41

- Name : Column
- Weight : 546 grams/ pcs
- Material : STKM12B



ITEM NO : FA42

- Name : Pinion Shaft
- Weight : 272 grams/ pcs
- Material : SCM440H





ITEM NO : FA43

- Name : Bearing Guide
- Weight : 194 grams/pcs
- Material : SWCH10A



ITEM NO : FA44

- Name : Cap Nut
- Weight : 94 grams/pcs
- Material : SWCH25A



ITEM NO : FA45

- Name : Long Nut
- Weight : 63 grams/ pcs
- Material : SWCH45F



ITEM NO : FA46

- Name : Load Screw
- Weight : 20 grams/ pcs
- Material : SCM435H



ITEM NO : FA47

- Name : Plug
- Weight : 140 grams/pcs
- Material : SWCH25F



ITEM NO : FA48

- Name : Piston Pin
- Weight : 429 grams/pcs
- Material : SCM415H



ITEM NO : FA49

- Name : Hub with Hole
- Weight : 86 grams/pcs
- Material : SWCH25F



ITEM NO : FA50

- Name : Hub
- Weight : 71 grams/pcs
- Material : SWCH22A



ITEM NO : FA51

- Name : Laver-A Control
- Weight : 338 grams/pcs
- Material : SWCH25F



ITEM NO : FE01

- Name : Case Drum
- Weight : 540 grams/pcs
- Material : SWRCH10A



ITEM NO : FE02

- Name : Case Drum
with Internal Spline
- Weight : 465 grams/pcs
- Material : SWCH10A



ITEM NO : FE03

- Name : Case Drum
with Big Mouth
- Weight : 920 grams/ pcs
- Material : S10C



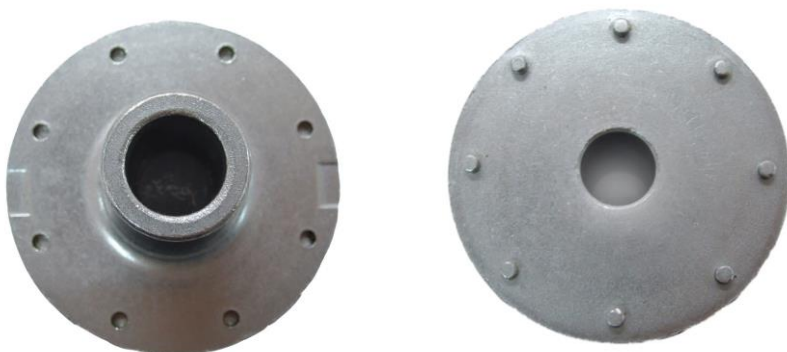
ITEM NO : FE04

- Name : Case Drum
with Embo
- Weight : 610 grams/ pcs
- Material : S10C



ITEM NO : FE05

- Name : Plate Drum
- Weight : 440 grams/pcs
- Material : S10C



ITEM NO : FE06

- Name : Plate Drum
with 8-Embo
- Weight : 301 grams/pcs
- Material : S10C



ITEM NO : FE07

- Name : Plate Drum
with Different Bottom
- Weight : 373 grams/pcs
- Material : SWCH38F



ITEM NO : FE08

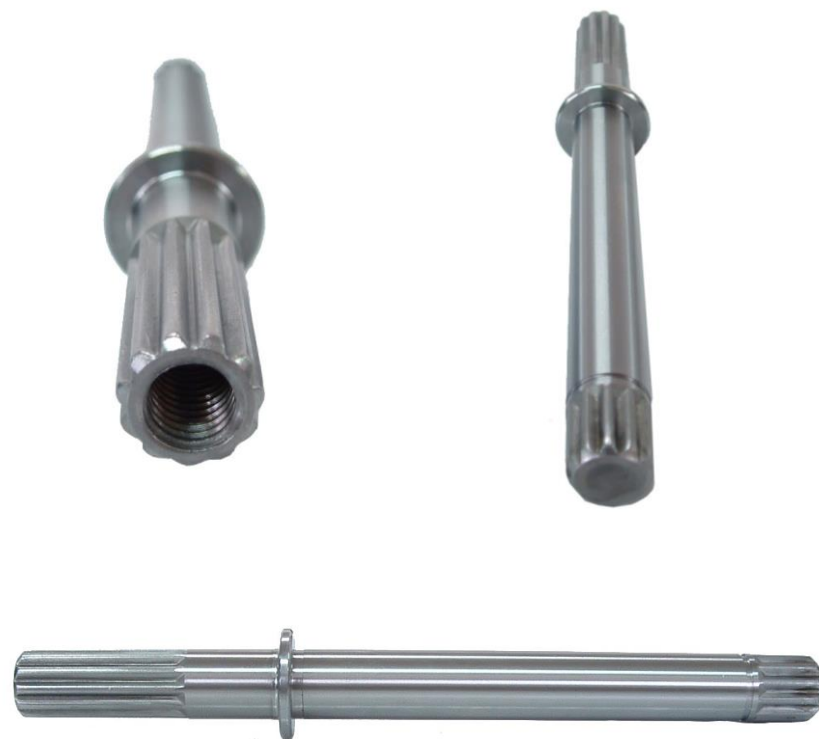
- Name : Plate Drum
with Small Pole
- Weight : 330 grams/pcs
- Material : SWCH38F





ITEM NO : FE09

- Name : Plate Drum
with Serration
- Weight : 337 grams/pcs
- Material : SWCH38F



ITEM NO : FE10

- Name : Upper Shaft
with Serration Head
- Weight : 185 grams/pcs
- Material : SUS410



ITEM NO : FE11

- Name : Upper Shaft
with Rectangular Head
- Weight : 100 grams/pcs
- Material : SUS410



ITEM NO : FE12

- Name : Upper Shaft Forged
- Weight : 335 grams/pcs
- Material : SUS410



ITEM NO : FE13

- Name : Gear Shaft
with Rectangular
- Weight : 85 grams/ pcs
- Material : SWCH45F



ITEM NO : FE14

- Name : Gear Shaft
with Serration
- Weight : 88 grams/ pcs
- Material : SWCH45F



ITEM NO : FE15

- Name : Spin Shaft
- Weight : 260 grams/ pcs
- Material : SUS410



ITEM NO : FE16

- Name : Spin Shaft
with Rectangular
- Weight : 235 grams/ pcs
- Material : SUS410



ITEM NO : FE17

- Name : Spin Shaft
with Flange
- Weight : 318 grams/ pcs
- Material : SUS410



ITEM NO : FE18

- Name : Spin Shaft
with 6-Hole
- Weight : 31a2 grams/ pcs
- Material : SUS410



ITEM NO : FE19

- Name : Flange Shaft
- Weight : 430 grams/pcs
- Material : SUS410



ITEM NO : FE20

- Name : Shaft
with Cup-Shaped
- Weight : 383 grams/pcs
- Material : SUS410





ITEM NO : FE21

- Name : Shaft
with Serration Head
- Weight : 357 grams/ pcs
- Material : SWCH25F



ITEM NO : FE22

- Name : Shaft
with 2-Serration
- Weight : 585 grams/ pcs
- Material : SWCH45F





ITEM NO : FE23

- Name : Drum Shaft
with Rectangular
- Weight : 980 grams/ pcs
- Material : SWCH45F



ITEM NO : FE24

- Name : Drum Shaft
with Serration
- Weight : 972 grams/ pcs
- Material : SWCH45F





ITEM NO : FI01

- Name : Spring Holder
- Weight : 567 grams/pcs
- Material : SWCH10A



ITEM NO : FI02

- Name : Side Nut
- Weight : 119 grams/pcs
- Material : SWCH10A



ITEM NO : FI03

- Name : Check Piston
- Weight : 445 grams/pcs
- Material : S10C



ITEM NO : FI04

- Name : Timing Belt Pulley
- Weight : 548 grams/pcs
- Material : SWCH45F



ITEM NO : FI05

- Name : Pinion Gear
- Weight : 163 grams/pcs
- Material : SCM415H



ITEM NO : FI06

- Name : Gear
- Weight : 126 grams/pcs
- Material : AISI4140



ITEM NO : FI07

- Name : Nipple
- Weight : 650 grams/pcs
- Material : S20C



ITEM NO : FI08

- Name : Piston Trim
- Weight : 168 grams/pcs
- Material : SWCH22A

We keep going develop new products !



ITEM NO :

- Name :
- Weight :
- Material :



Specialist of Cold Forging

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