

Material selection for sprockets

Choosing the correct material for sprockets are equally important as the design of the sprocket.

There are many material options but depending on the application, environment and other factors below table offers the best mix of price, wear resistance, corrosion resistance and match with the chain material.

On selected materials each individual tooth profile is induction hardened. This is done to avoid the risk of tooth breaking and add flexibility to the tooth.

Material St52-3

Pros	Easy to weld, Low price
Cons	Unable to harden, Low wear resistance
Hardening method	N/A
Hardening depth	N/A
Hardness	N/A

Material C45

Pros	Can be hardened, High wear resistance, High strength
Cons	Limited weldability
Hardening method	Induction hardening
Hardening depth	3-5mm
Hardness	54 +2 HRC

Material 42CrMo4

Pros	Tough material, High strength, High Carbon content, Higher hardness.
Cons	Limited/low weldability, Difficult to harden, Expensive
Hardening method	Induction hardening
Hardening depth	3-5mm
Hardness	58 +2 HRC

Material Stainless steel

Pros	Used in Abrasive/Corrosive environment, High corrosion resistance
Cons	Expensive, Difficult to machine
Available E.N number	1.4301 / 1.4571 / 1.4122 etc.

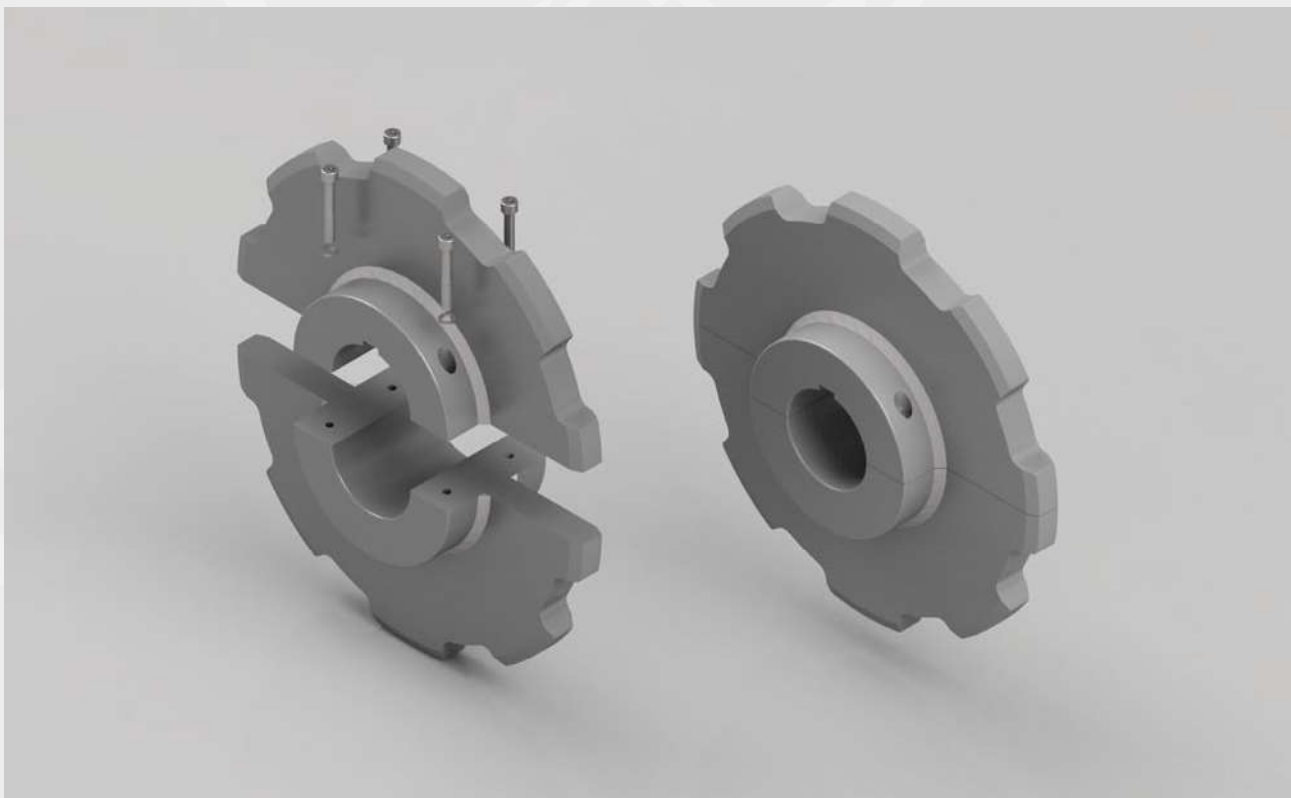
Split sprockets



Ever considered the amount of service hours used for changing the sprocket?

ScanChain offers split sprockets as a perfect alternative to normal mono sprockets. Changing Mono block sprockets requires des-assembly of the shaft, bearing houses and motor/gear. Using split sprockets this work can be minimized significantly and the total downtime of your production equipment reduced by 80%

By use of special manufacturing procedure, the sprockets are split seamless. This results in a perfect aligned sprocket with a bore that matches the shaft, keyway and/or bush to which the sprocket shall be mounted. The design and welding of hub and plate are made to avoid the potential risk of plate release from the hub by extreme force.



Assembly instructions:

Only use calibrated Torque Wrench when tightening set bolt screws. Ruling DIN norm applicable.
I.e. Hex Cap screws DIN931/ISO 4014 or Unbrako Cap screws DIN912/ISO 4792
Apply copper grease to bolt thread prior to final installment.