

# 14- ma'ruza. Tokarlik dastgohlar

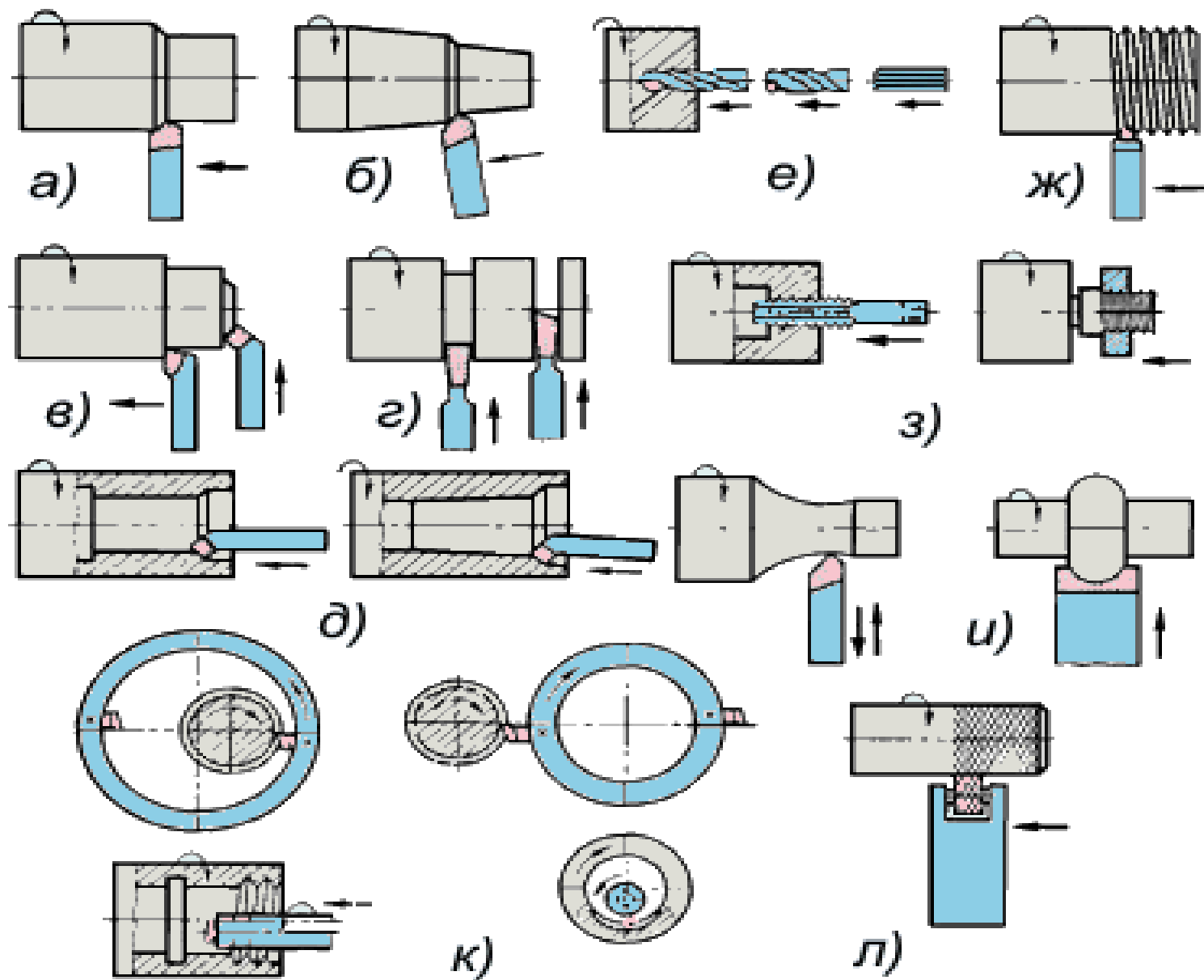
§1. Tokarlik ishlari, tokarlik dastgohning tezliklar qutisi, tokarlik dastgohlarda ishlatiladigan moslamalar.

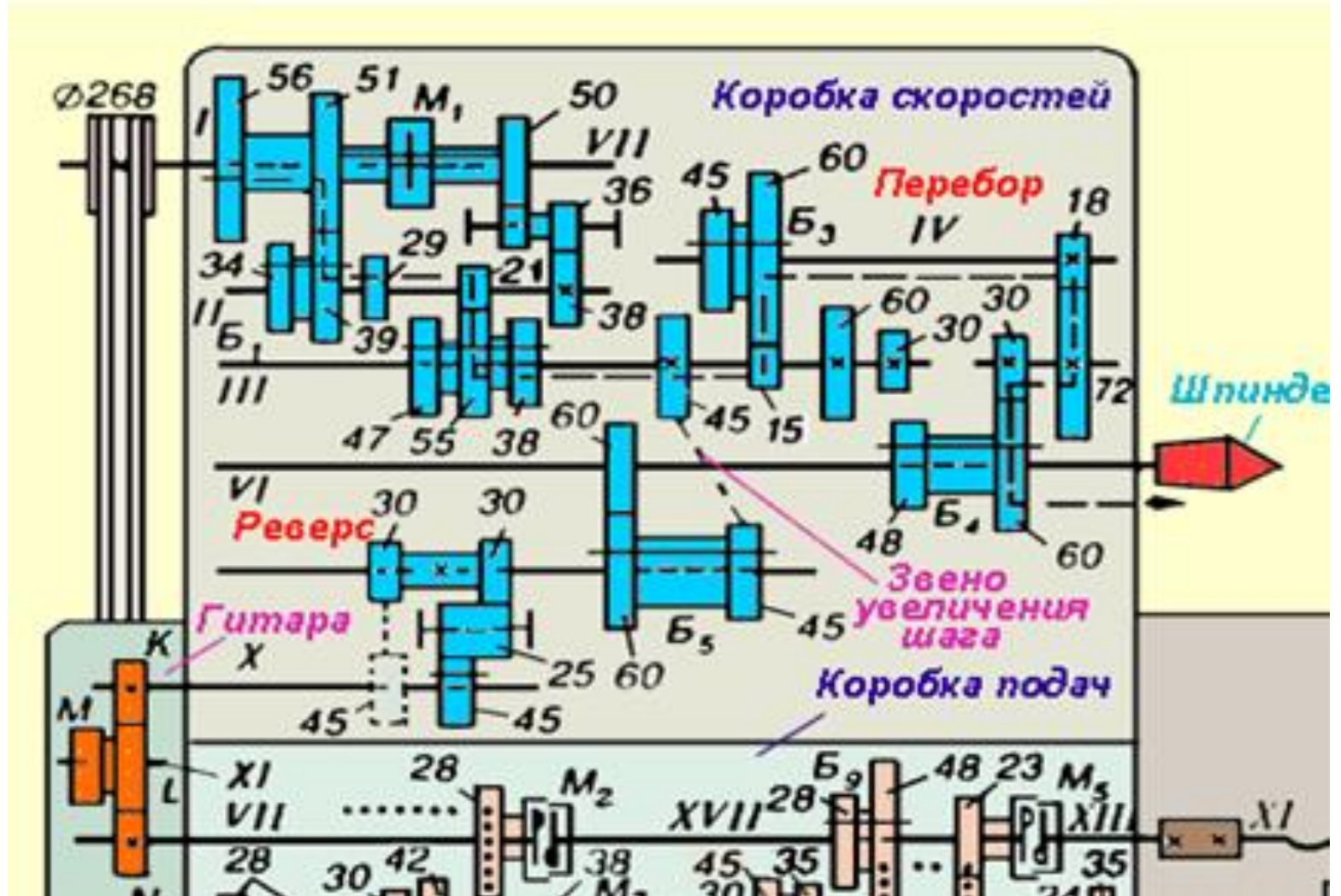
§2. Tokarlik bir va ko'p shpindelli avtomat va yarim avtomatlar

§3. Tokarlik revolver dastgohlar

§4. Tokarlik karusel dastgohlar

Tokarlik dastgohlarda xilma-xil ishlarni bajarish mumkin. Universal tokar-vintqirqish dastgohlar donalab va seriyalab ishlab chiqarishda qo'llaniladi.





$$n_{\text{ШП}} = 1460 \cdot (\varnothing 148 / \varnothing 268) \cdot 0,985 (51/39) \text{ или } (56/34) \cdot (21/55) \times$$

$$\times \text{ или } (38/38) \text{ или } (29/47) (30/60) \text{ или } (60/48);$$

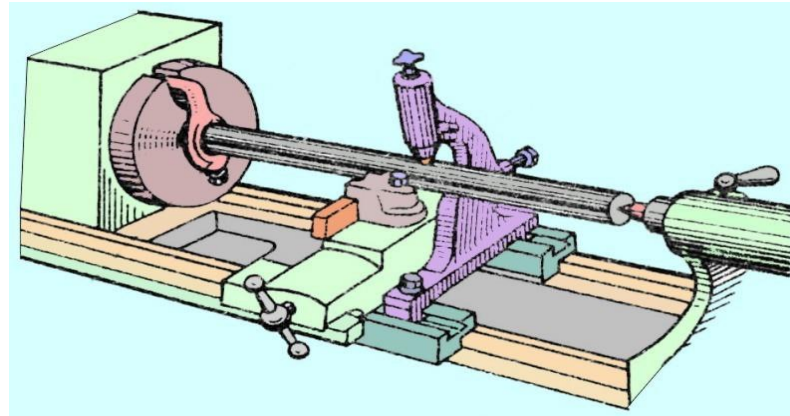
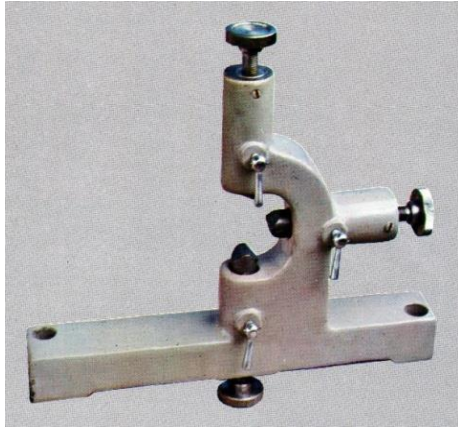
$$n_{\text{ШП}} = 1460 \times (\varnothing 148 / \varnothing 268) \cdot 0,985 \cdot (51/39) \text{ или } (56/34) \cdot (21/55) \times$$

$$\times \text{ или } (29/47) \text{ или } (38/38) \cdot (15/60) \text{ или } (45/45) \cdot (18/72) \cdot (30/60).$$

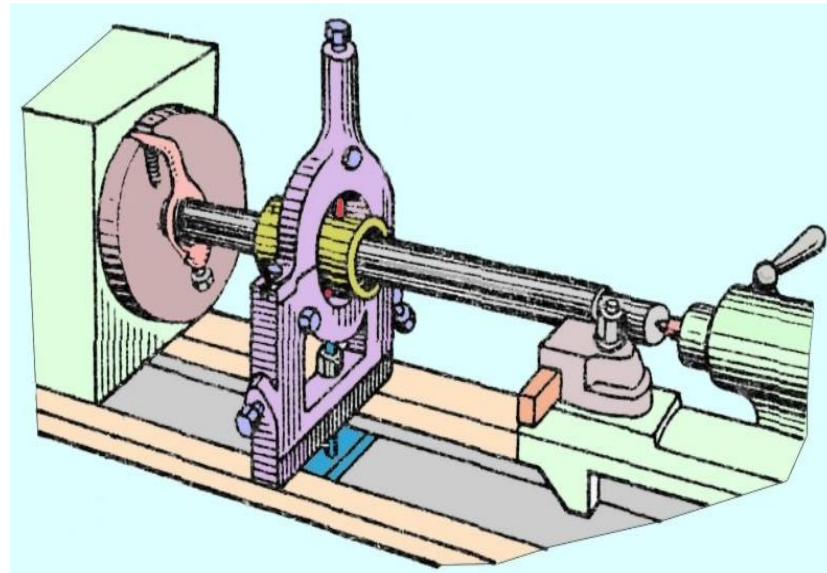
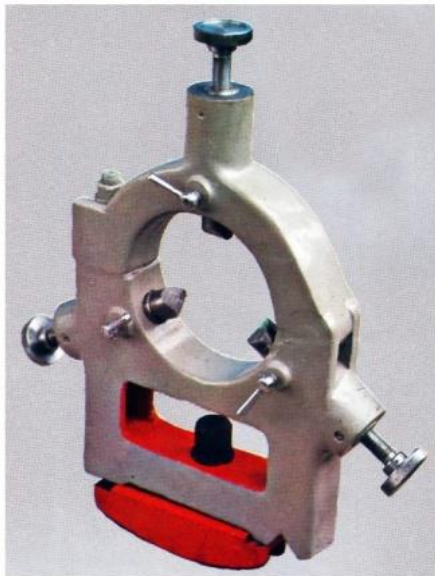
Xomakilarni dastgohga o'rnatish uchun har xil moslamalar qo'llaniladi:

- lyunetlar, - patronlar, - planshaybalar, - opravkalar.

Uzun va bikrligi past xomakilar lyunetlar yordamida ishlanadi.

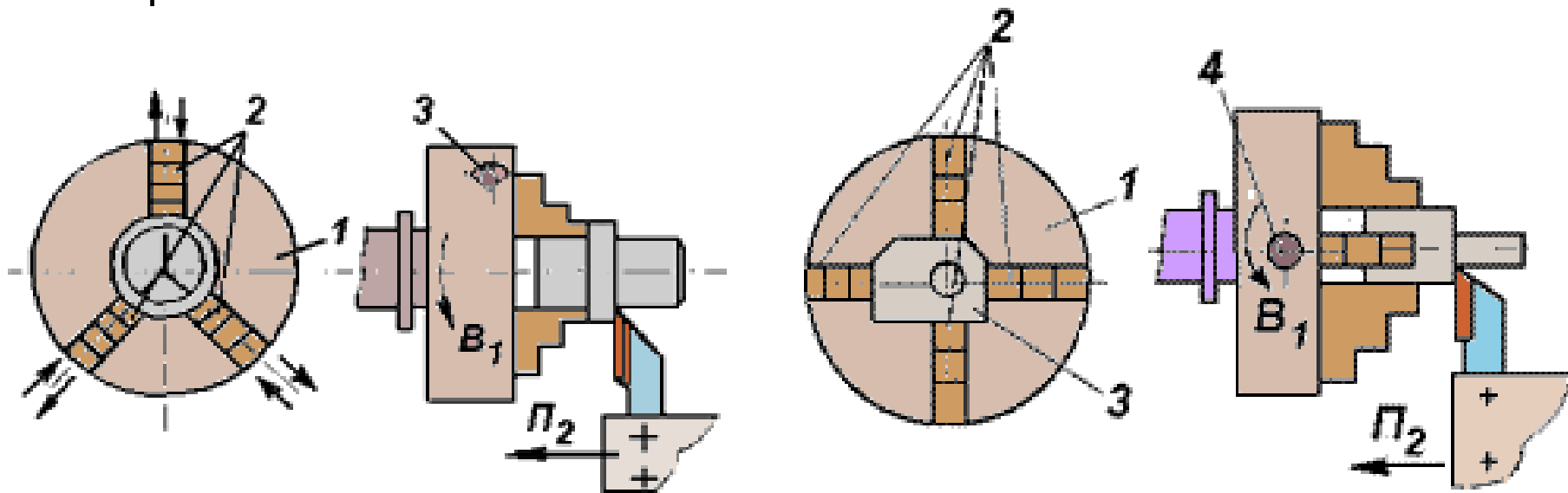


Support  
bilan birga  
suriladigan  
lyunet  
yordamida

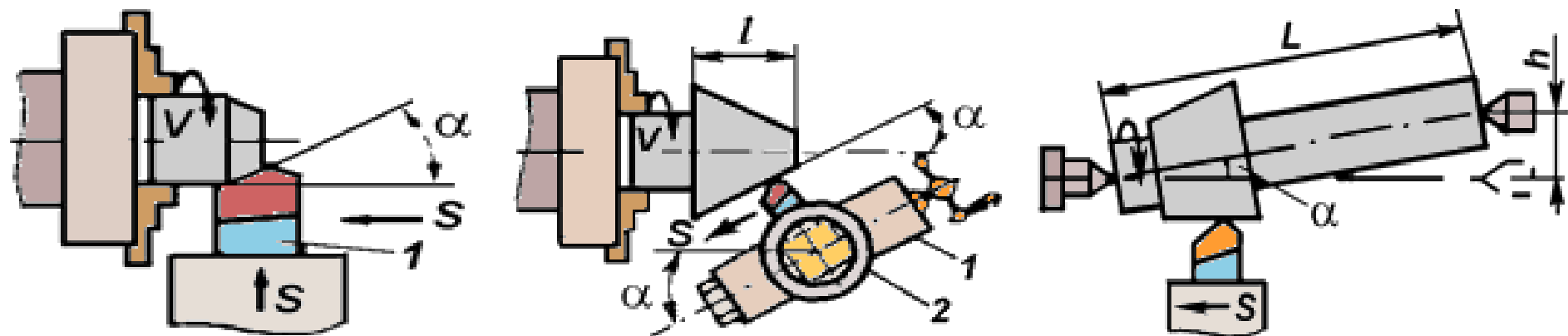


Qo'zg'almas  
lyunet  
yordamida

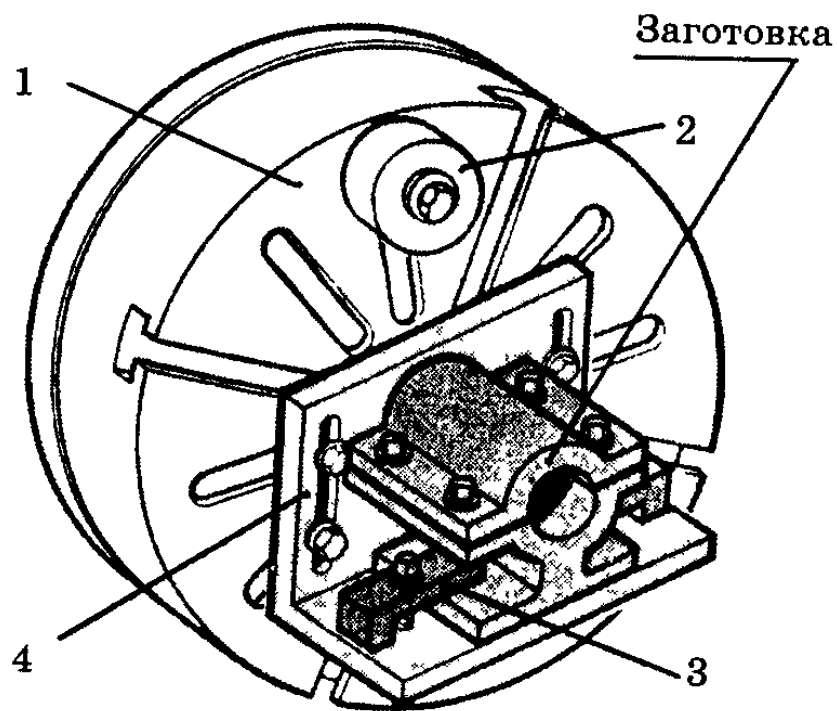
Agar ishlanadigan detalning shakli simmetrik bo'lmasa to'rt kulachokli patron qo'llaniladi. Unda har bir kulachok alohida rostlanadi



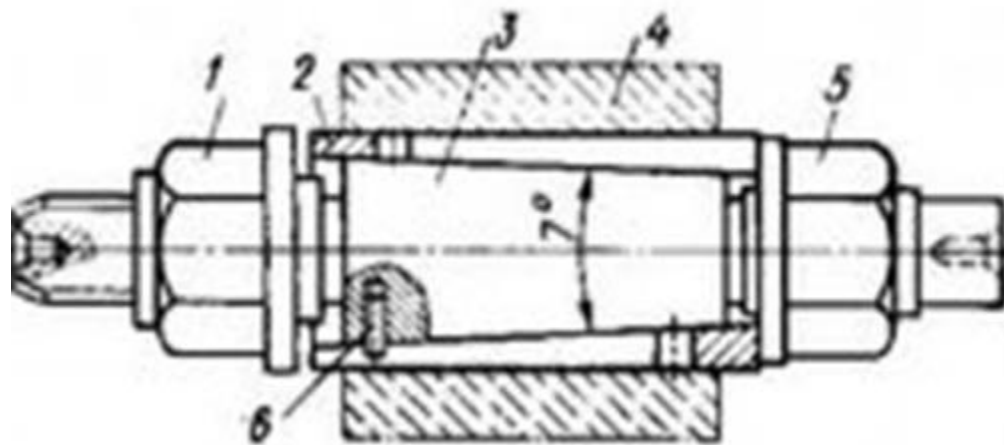
### Konuslarni yo'nish usullari.

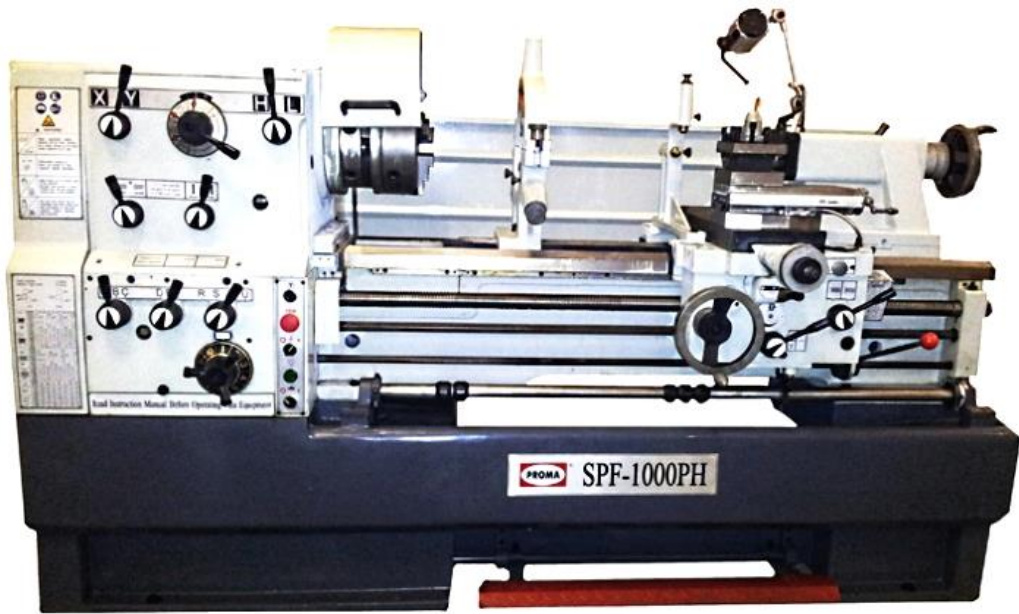


**Planshayba** – bu ishlov beradigan detalni mahkamlash uchun mo'ljallangan disk shaklidagi maxsus moslama. Odatda detal planshaybaga ugolniklar, boltlar va maxsus mahkamlash usullari bilan o'rnatiladi.



**Opravka** – metallkesish dastgohlarda xomakini yoki asbobni mahkamlash uchun mo'ljallangan uzun silindr shaklidagi moslama. Opravkalar turlari – yaxlit va yig'ma, markazlashtirilgan va osma.



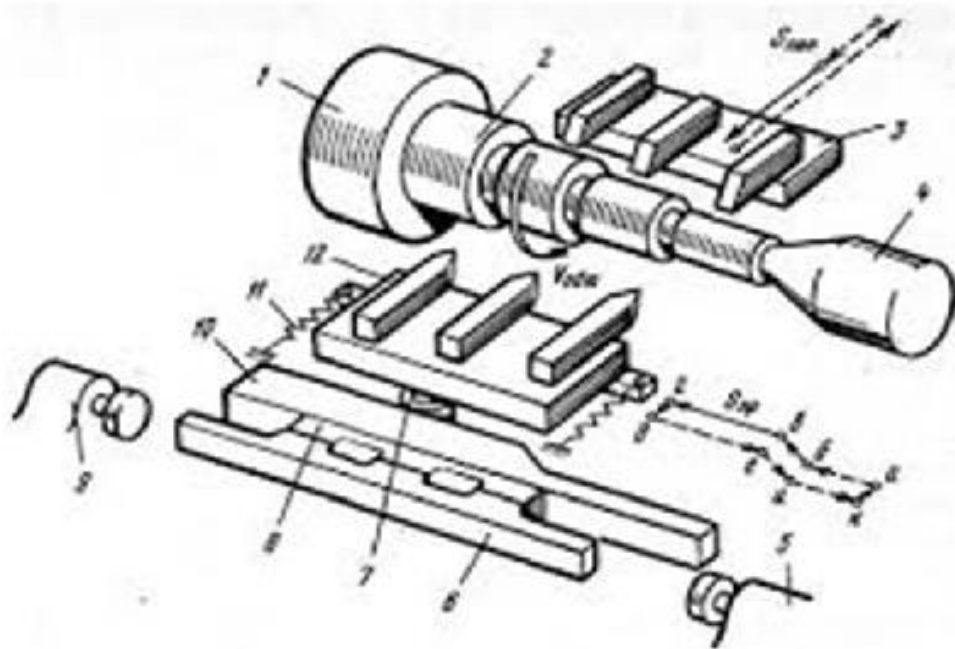


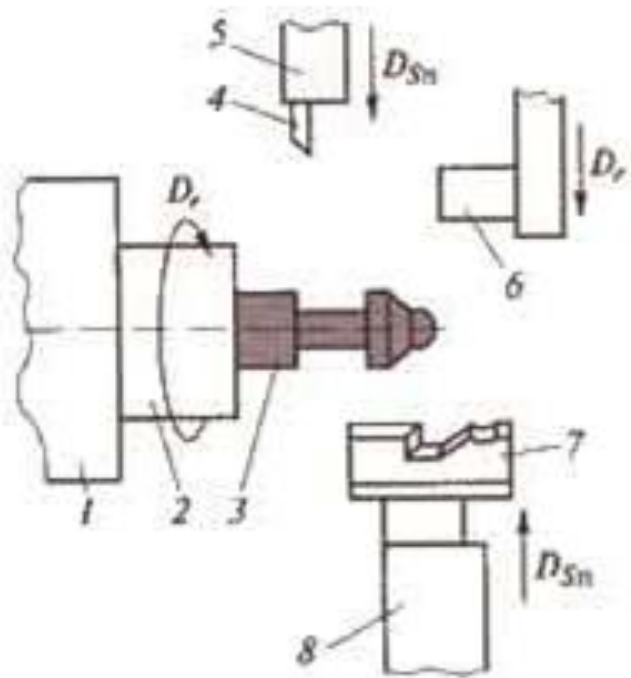


## §2. Tokarlik bir va ko'p shpindelli avtomat va yarimavtomatlar

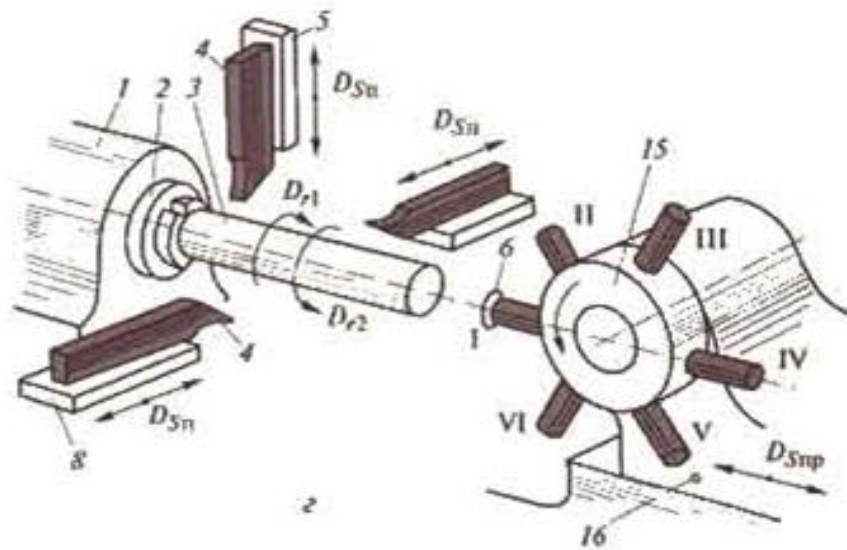
**Tokarlik ko'p keskichli dastgohlar** patron yoki markazlarda pog'onali val, shesternyalar bloki kabi detallarni seriyalab yoki ko'plab ishlab chiqarishda tayyorlah uchun qo'llaniladi.

Ko'p keskichli dastgohlarda ikki va undan ham ko'p supportlarida bir vaqtni o'zida ishlaydigan bir nechta keskich texnologik vaqtni kamayishiga olib keladi.

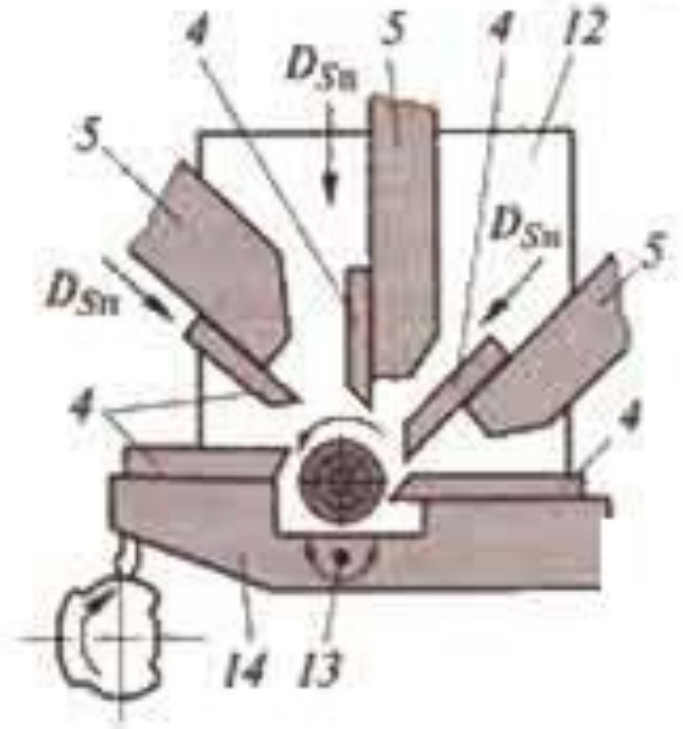
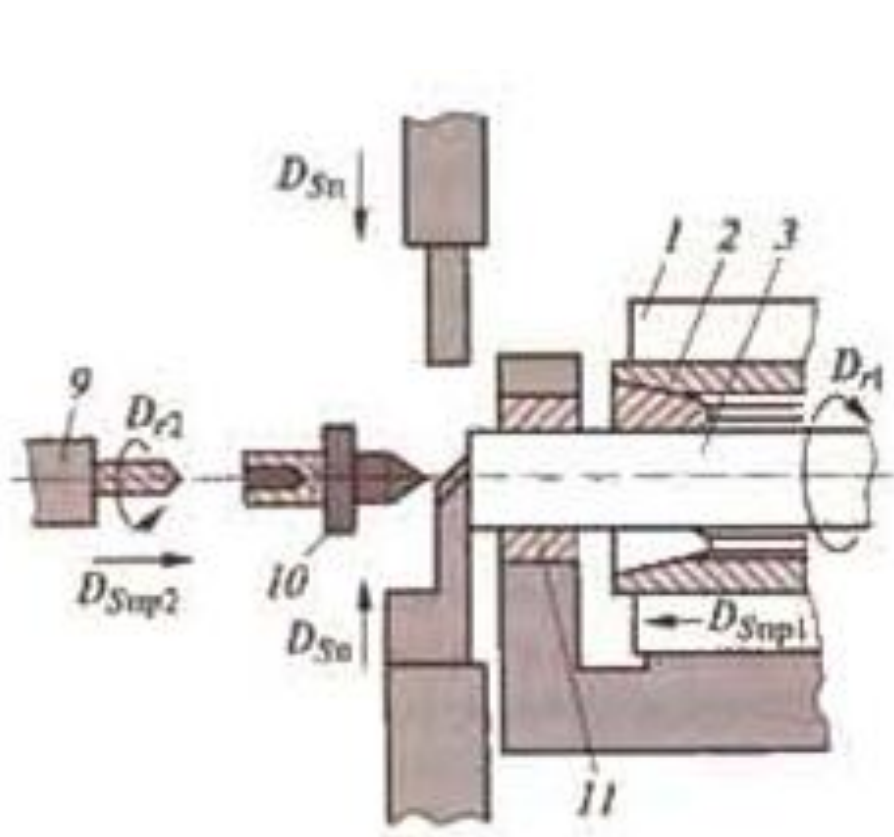




Fason shaki berib kesib tushiruvchi  
bir shpindelli avtomat

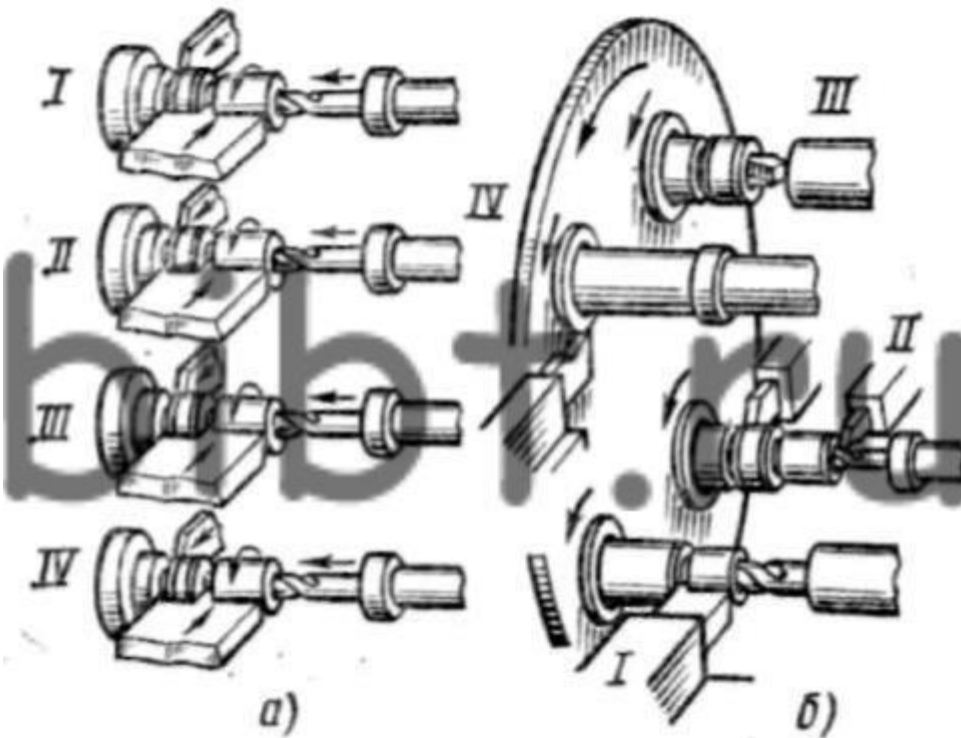


Tokarlik-revolver yarim avtomat



Bo'ylama yo'navchi bir shpindelli avtomat

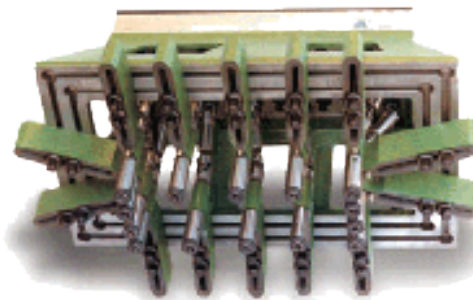
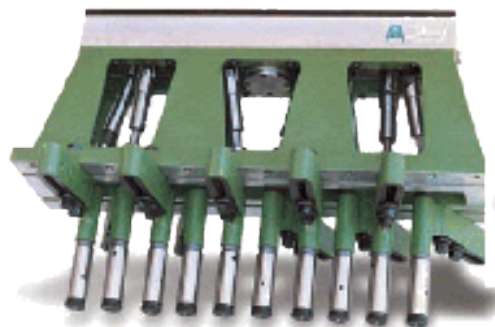
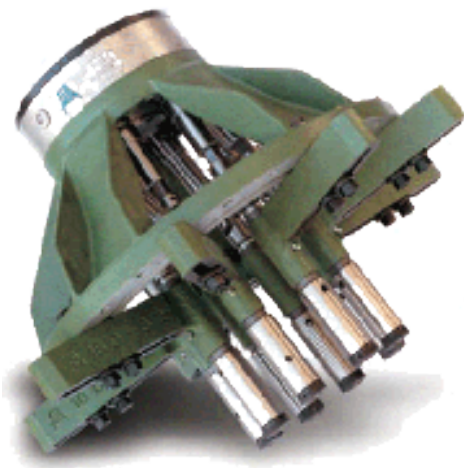




Ko'p shpindelli dastgohda detallarni parallel (a) va ketma-ket (b) usulida ishlash.

Parallel usulida bir vaqtni o'zida har bir shpindelda bir xil operatsiyalar bajariladi va natijada nechta shpindel bo'lsa shuncha detall olinadi.

Ketma-ket usulida har bir shpindelda har xil ishlar bajariladi va bitta detall ishlanadi.



### §3.Tokarlik revolver dastgohlar

Bunday dastgohlarni xomaki ko'p kesish asboblari (keskich, parma, razvyortka, metchik) yordamida ishlov berish uchun ishlatiladi. Bu asboblari kerakli ketma-ketlikda revolver kallagi va ko'ndalang supportlarning keakich tutqichlari o'rnatiladi.





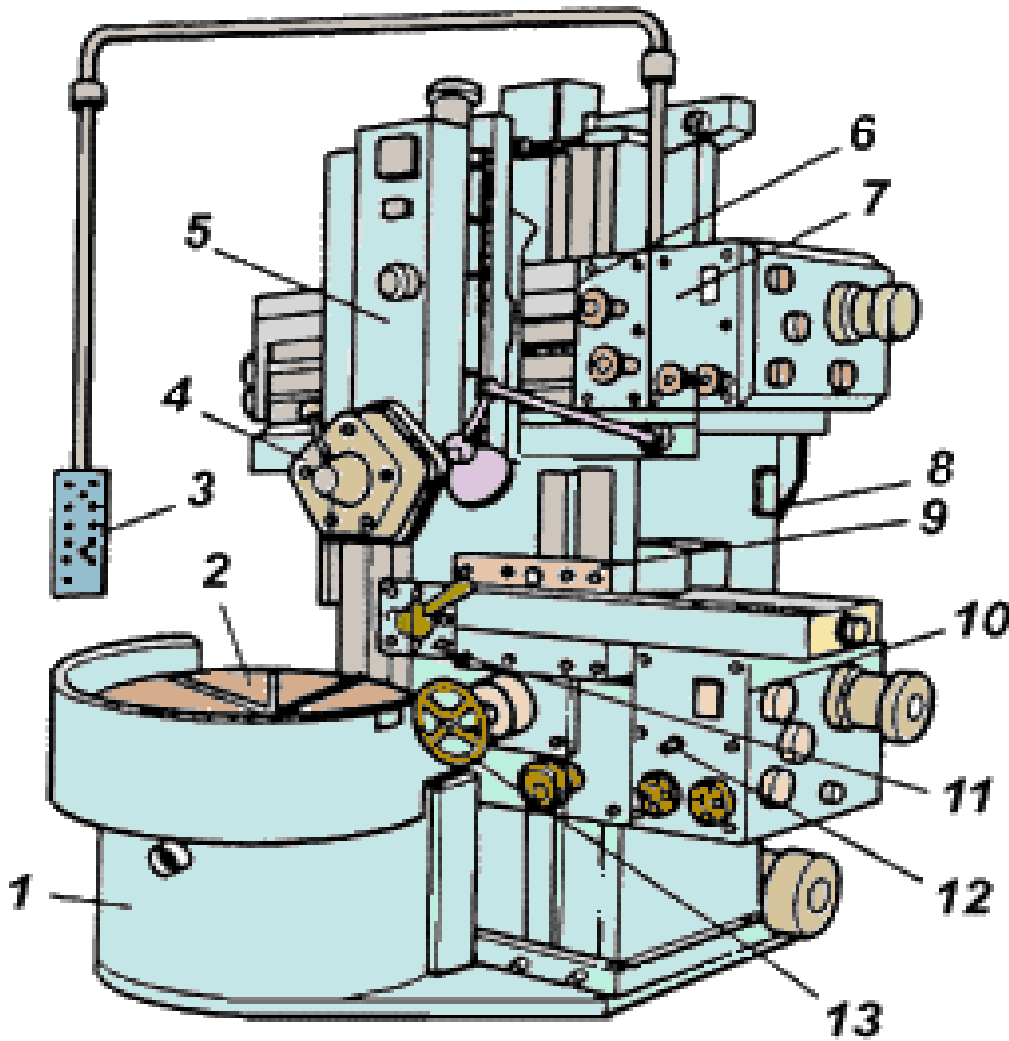
Tokar-revolver dastgohi  
(revolver kallagi vertikal o'q atrofida aylanadi)



Tokar-revolver dastgohi  
(revolver kallagi gorizontaal o'q atrofida  
aylanadi



## Tokarlik karusel dastgohlar



Karusel dastgohlar uhcha uzun bo'lmagan katta diametrlig'ir xomakilarni ishlash uchun qo'llaniladi.

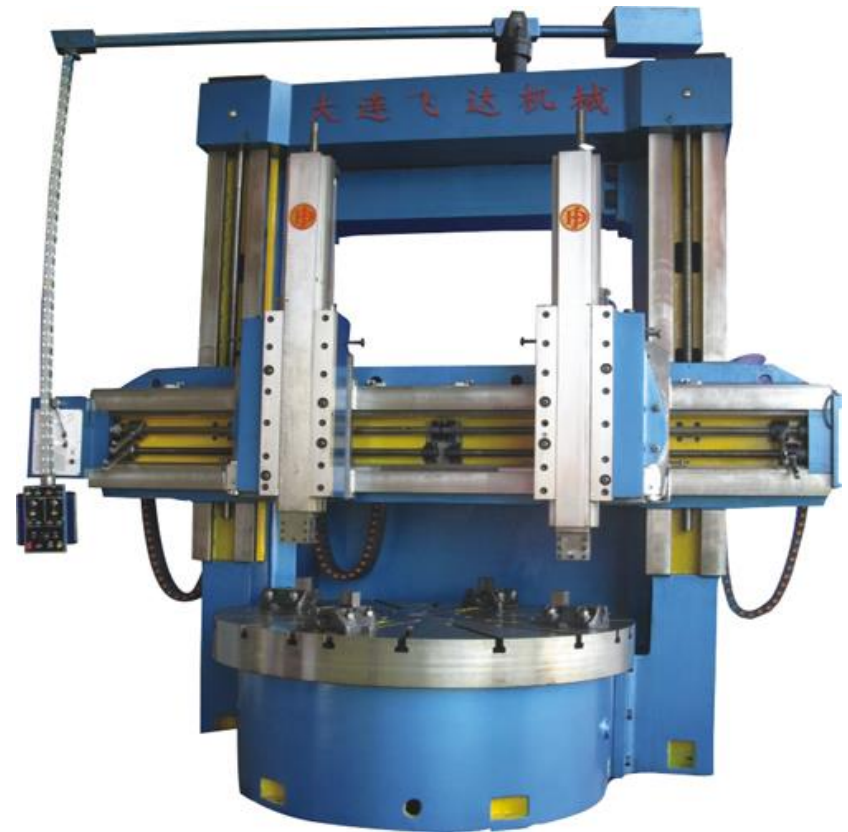
Xomakilar o'lchamlari, mm:  
diametr **1250 mm** gacha  
balandlik **1000 mm** gacha

Planshayba diametri **1120 mm**  
Aylanishlar soni **22**  
Aylanishlar tezligi **5-250** ayl/min  
Surish qiymati **0,07-12,5** mm/ayl  
Dvigatel quvvati **30** kVt  
Dvigatel tezligi **1450** ayl/min

Tokar-karusel dastgohlarni ajratib turgan qismi – bu shpindelni vertikal joylashishi.



Bir stoykali tokarlik-karusel dastgoh



Ikki stoykali tokarlik-karusel dastgoh

## Nazorat savollari

1. Tokarlik dastgohning aylanishlar tezligi qanday o'zgartiriladi?
2. Tokarlik dastgohlarda ishlatiladigan patron va lyunetlarning vazifasi nimadan iborat?
3. Ko'p keskichli tokarlik dastgohlarning universal dastgohlar oldida qanday afzalliklari bor?
4. Ko'p shpindelli avtomatlarda parallel va ketma-ket ishlov berishlarni tushuntiring.
5. Tokarlik-revolver dastgohi nima bilan ajralib turadi?
6. Tokarlik-karusel dastgohlar haqida nima bilasiz?