

## O‘TQAZISHLAR

**Maxmudov Abdurasul Abdumajidovich**

(Farg‘ona politexnika instituti)

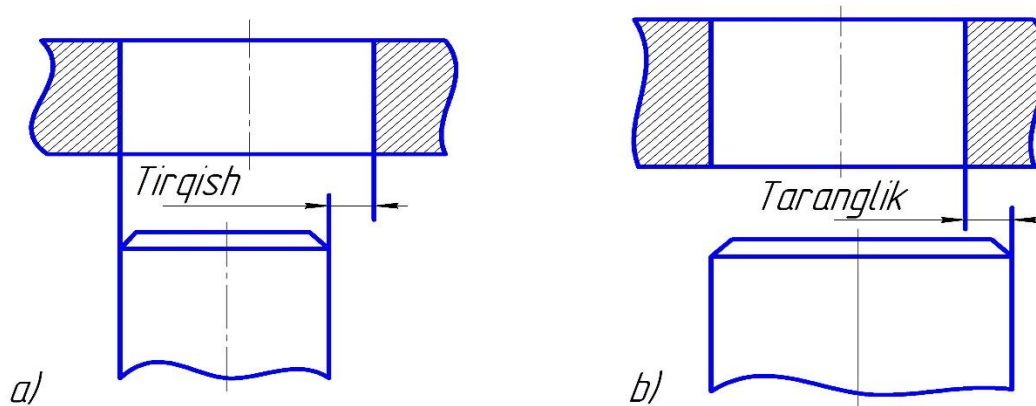
### ANNOTATSIYA

O‘tqazishlar mashinasozlik detallarini o‘zaro biriktirishda hosil bo‘ladigan mexanik qonuniyatdir. Detallar biriktirilayotgan texnologik jarayonda hosil bo‘ladigan taranglik (tig‘izlik) yoki tirqish (oraliq)larni ruxsat etilgan chetlanishlarini belgilab beradi. Mashinasozlik yig‘ish texnologik jarayoni bajarishda detallarni o‘zaro birikishini qonuniyatga soladi.

**Kalit so‘zlar:** tirqish, taranglik, tirqish bilan o‘tqazishlar; taranglik bilan o‘tqazishlar; o‘tadigan o‘tqazishlar.

### KIRISH

O‘tqazishlar birikmada hosil bo‘ladigan tirqish yoki taranglik bilan aniqlanadi. Teshik va val o‘lchamlari orasidagi ayirma musbat (teshikning diametri val diametridan katta) bo‘lsa, **tirqish** deyiladi (1- shakl, a), agar bu ayirma manfiy (teshikning diametri val diametridan kichik) bo‘lsa, **taranglik** deyiladi (1- shakl, b). Biriktirilgan detallar bir-biriga nisbatan erkin sirpansa, tirqish, detallar bir-biriga nisbatan siljishda qarshilik kobrsatilsa, taranglik hosil bo‘ladi. Biriktirilgan o‘tqazishlar, asosan, uch guruhga bo‘linadi: **tirqish bilan o‘tqazishlar; taranglik bilan o‘tqazishlar; o‘tadigan o‘tqazishlar.**



1-shakl

O‘tadigan o‘tqazishlarda tirqish ham, taranglik ham bo‘lib, ulaming o‘rtasidagi holatni egallaydi.

**O'tqazish qo'yimi.** Chizmalarda o'tqazishlar shartli ravishda kasr ko'rinishida belgilanadi. Kasming suratida teshik qo'yimi maydonining belgilanishi, maxrajida val qo'yim maydonining belgilanishi ko'rsatiladi.

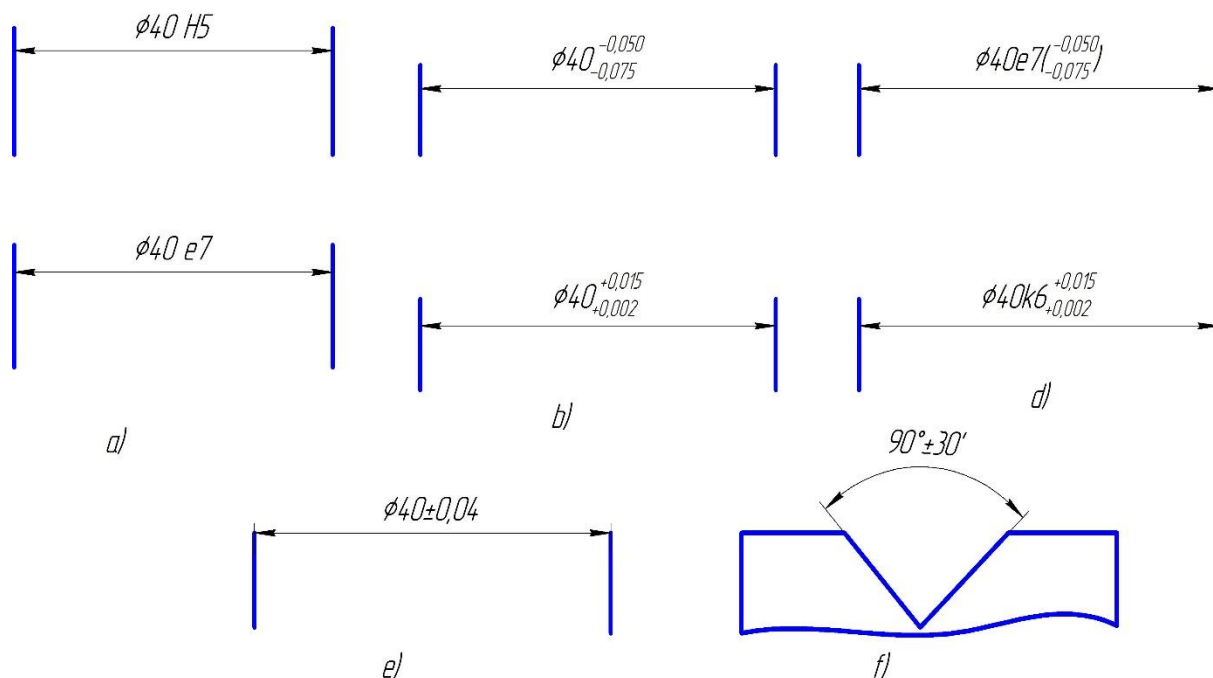
$$\frac{H7}{f6}; \frac{F8}{h7}; \text{yoki } N7/f6; F8/h7.$$

Masalam:

Teshik tartibida teshiklar lotin alifbosining bosh (katta) harflari, val sistemasida vallar uchun lotin alifbosining yozma (kichik) harflari bilan belgilanadi.

Teshik tartibi bilan bajarilgan o'tqazishlar quyidagicha belgilanadi: N7/g6; N5/p5; N9/17 va hokazo. Xuddi shu o'tqazishlar val tartibida quyidagicha belgilanadi: G6//2; P5/h5', E7/h9 va hokazo.

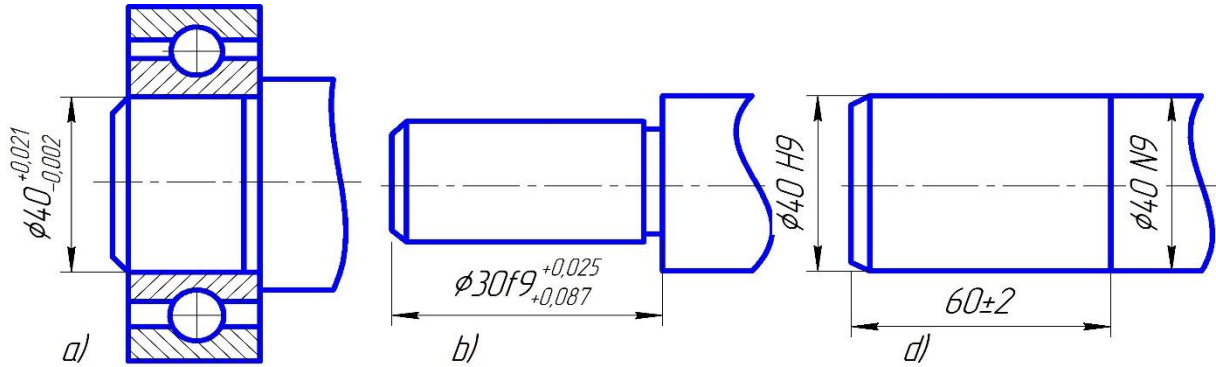
**O'lchamlarning chekli chetga chiqishlarini qo'yish.** Chizmalarda qo'yimlar va o'tqazishlar standartlarda qabul qilingan shartli belgilar bilan yoki mm hisobidagi son qiymatlari bilan ko'rsatiladi. O'lchamlardagi chekli chetga chiqishlar chizmalarda o'tqazish va qo'yimlar standartlariga muvofiq shartli belgi (2-shakl, a) yoki ulaming son qiymatlari bilan (2-shakl, b) chekli chetga chiqishlarning shartli belgilari va o'ng tomonda qavs ichida ulaming son qiymatlari ko'rsatiladi (2-shakl, d).



2-shakl

O'lchamning yuqorigi va pastki chetga chiqishlarining son qiymatlari o'zaro teng bo'lsa, bu qiymatlar «±» belgilar orqali nominal o'lcham yozilgan harf bilan qo'yiladi (2-shakl, e). Burchaklarning chekli chetga chiqishlarining son qiymatlari uning nominal o'lcham i yozilgan harflarda yoziladi (2-shakl, f).

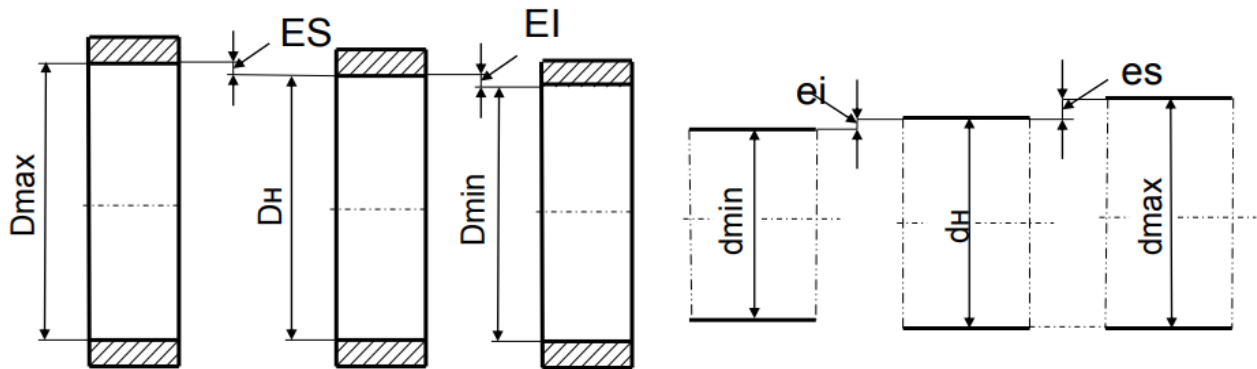
Podshipniklar, shlisalar, shponkalar va unga o'xshashlar uchun chekli chetga chiqishlar belgilanishga misol 3-shakl, a da ko'rsatilgan. Qo'yim maydoni simmetrik bo'lmagan hollarda pog'ona o'lchamlariga qo'yim va o'tqazishlami belgilashga misol 3-shakl, b da ko'satilgan. Bir xil nominal o'lchamli sirtlarda har xil chekli chetga chiqishlar belgilangan hollarda, ular ingichka chiziq bilan chegaralab qo'yiladi va nominal o'lcham har bir uchastka uchun alohida ko'rsatiladi (3-shakl, d).



3-shakl

Teshik o'qlari joylashishining chekli chetga chiqishlarini quyida keltirilgan ikki usul bilan ko'rsatish mumkin:

- standart talabiga muvofiq teshik o'qlarini nominal joylashishidan chekli siljitish bilan;
- muvofiqlashtirilgan o'qlar o'lchamlarining chekli chetga chiqishlari bilan



Joizlik IT — chekli o'lchamlarning yoki yuqorgi va pastki og'ishlarning ayirmasi

$$TD = D_{max} - D_{min} = (D_{max} - D_n) - (D_{min} - D_n) = ES - EI;$$

$$Td = d_{max} - d_{min} = (d_{max} - d_n) - (d_{min} - d_n) = es - ei;$$

Standart joizlik IT — joizlik va o'tqazishlar tizimida qabul qilingan barcha joizliklar

### XULOSA

Mashinasozlik detallarini yig'ish texnologik jarayonida detallarni o'zaro birikish natijasida xosil bo'lgan oraliq va tarangliklarni o'tqazishlar ma'lum bir qonuniyatga

solib turadi. Joizliklarni aniqlik kivalitetlariga bog‘liqligini va detallarni ishlab chiqarishda bunday texnologik shartlarga amal qilish juda muhimligini belgilab beradi.

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