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Transposition and Toric Transposition

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Introduction

Rules for Transposition

- Axis will be changed from the 90 degree apart
- Cylinder sign will be changed
- Cylinder value will remain same
- Spherical power will be adjusted to cylinder value

Examples

A. +4.00 Ds / +4.00 Dcyl*90

- Rule about Axis – Here, axis will be 180
- Cylinder sign – Here, cylinder value will be in minus form
- Cylinder value will be same
- Spherical power will be adjusted to spherical value

Here, [+4.00 + (+4.00)] = [+8.00]

- So, final answer will be

+8.00 Dsph / -4.00 Dcyl*180

B. +8.00 Dsh/-4.00 Dcyl*90

- +8.00 + (-4.00)/ +4.00 *180
- +(8.00) – (4.00) /+4.00*180
- +4.00/+4.00*180

Toric Transposition

Example 1

First Step

Prescription cylinder sign will be matched with the base curve sign.

Eg:

Suppose: [Base curve = -6.00]

Prescription: -2.00/+5.00*180

Here, Base curve is in minus form and prescription cylinder is in plus form, so transposition is needed [1].

- -2.00 + (+5.00)/-5.00*90
- +3.00/-5.00*90

Second Step

Always minus will be done between Base curve and spherical power.

Here, spherical power is +3.00D and Base curve is -6.00D

So, +3.00–(-6.00)

- +3.00 + 6.00
- +9.00

It will be used on the tool.

Third Step

Base curve axis will be completely perpendicular to the final prescription axis (after transposed) [2].

So, -6.00*180
Fourth Step
Always addition will be done between Base Curve and cylinder [3].
So,
- BC = -6.00
- Cylinder = -5.00
- -6.00+(-5.00)*90
- -6.00 - 5.00 * 90
- -11.00*90

Final,
+9.00

-6.00*180/ -11.00*90

Example 2
Prescription -3.00/+5.00*90
Base curve -6.00

First Step
Transpose the prescription so that base curve sign will be similar to the base curve sign
- +2.00/-5.00*180

Second Step
Minus should be done between spherical and base curve power.
- -6.00 – (+2.00)
- -6.00 - 2.00
- -8.00

It will be used in a tool

Third Step
Base curve axis will be completely perpendicular with the prescription (which is transposed)
So, axis will be
- -6.00*90

Fourth Step
Add Base curve and cylinder power
- -6.00 + (-5.00)*180
- -11.00*180

So, final
-8.00

-6.00*90 / -11.00*180

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