

Gear Specifics

We have a product that every home owner will want, but have had a difficult time obtaining a gear set required for it to function.

Specifications:

1. The resulting revolution of this transmission will be a 2:1 ratio increase in a reverse direction
2. We are making a prototype, and plan on using nylon or equivalent plastic, 7/16 to 1/2 inch thick.
3. Generator is expected to be 20,000 watts with a 100 amp service or 18-20 HP, but I'm suspecting that it'll be double that.
4. RPM considered: 3600, but this is for the production models.
5. The prototype will probably run 5) 100 watt light bulbs at the max, so the load should be fine with nylon gears ... if nylon, planetary gears should have brass bushings.
6. Brass bushings will be inserted in gears where they come in contact with axle rotation, on the planetary gears
7. We will also need a drawing using steel gears (type of steel TBD), with ball bearings on the planetary gears, with an enclosure (later)
8. Later still, we will be using magnetic bearings
9. Sun gear will be fitted for a 3/4" axle, with a 3/16" keyway and set screw
10. Eight helical thread inserts will be installed in the outer gear that will accept 1/4" fine threaded bolts
11. Axles for planetary gears will be determined by drafts person, or use 3/4" metal
12. Gear teeth pitch and size will be determined by drafts person, but should have at least 2 teeth in contact
13. All specifics for the following are ONLY suggested, and can change according to drafts person:
 - Tooth spacing
 - Contact angle
 - Teeth quantity on all gears

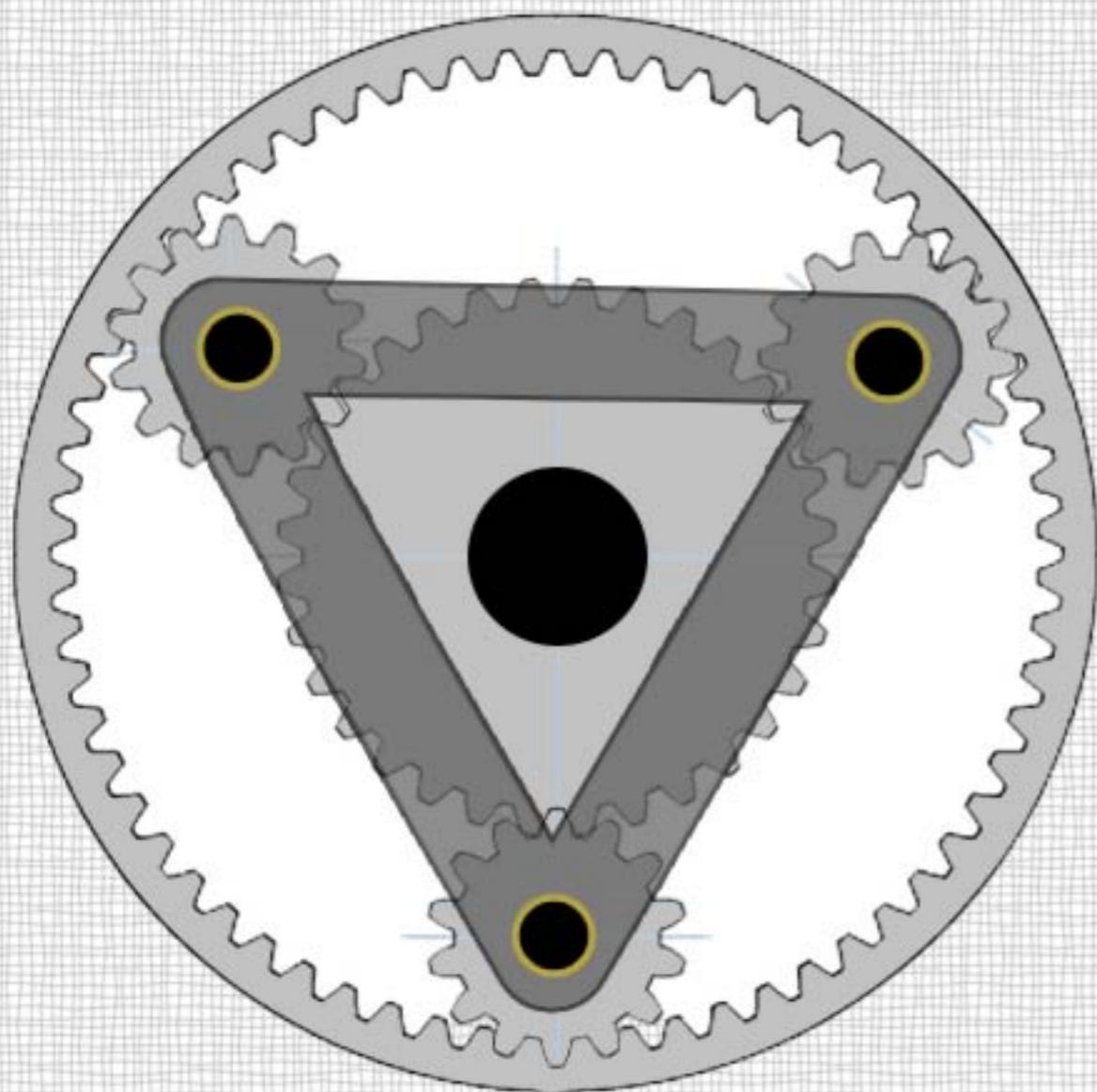
Need to find out: the diametral pitch, gear thickness (1/2 inch should do, relief on gears & a CAD or breakdown on each gear.

Should changes be necessary, please contact Steve: 928-583-3366

Please see following images.

INTERNAL GEAR REQUIREMENTS

Looking for Internal Gear Setup with a 2:1 ratio



TOOTH SPACING:
7 MM
(SUGGESTED)

CONTACT ANGLE:
25 DEGREES
(SUGGESTED)

OUTER GEAR:
64 TEETH
(SUGGESTED)
1/2" THICK

INNER GEAR:
32 TEETH
(SUGGESTED)
1/2" THICK
3/4" BOAR

STATIONARY
PLANETARY GEAR
10 TEETH
(SUGGESTED)
1/2" THICK
1/2" BOAR



Fuel and Energy Savings Products

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Chief engineer, Inventor

CEO: Steve Shearer 928-583-3366

Organizer, "get-it-done" guy

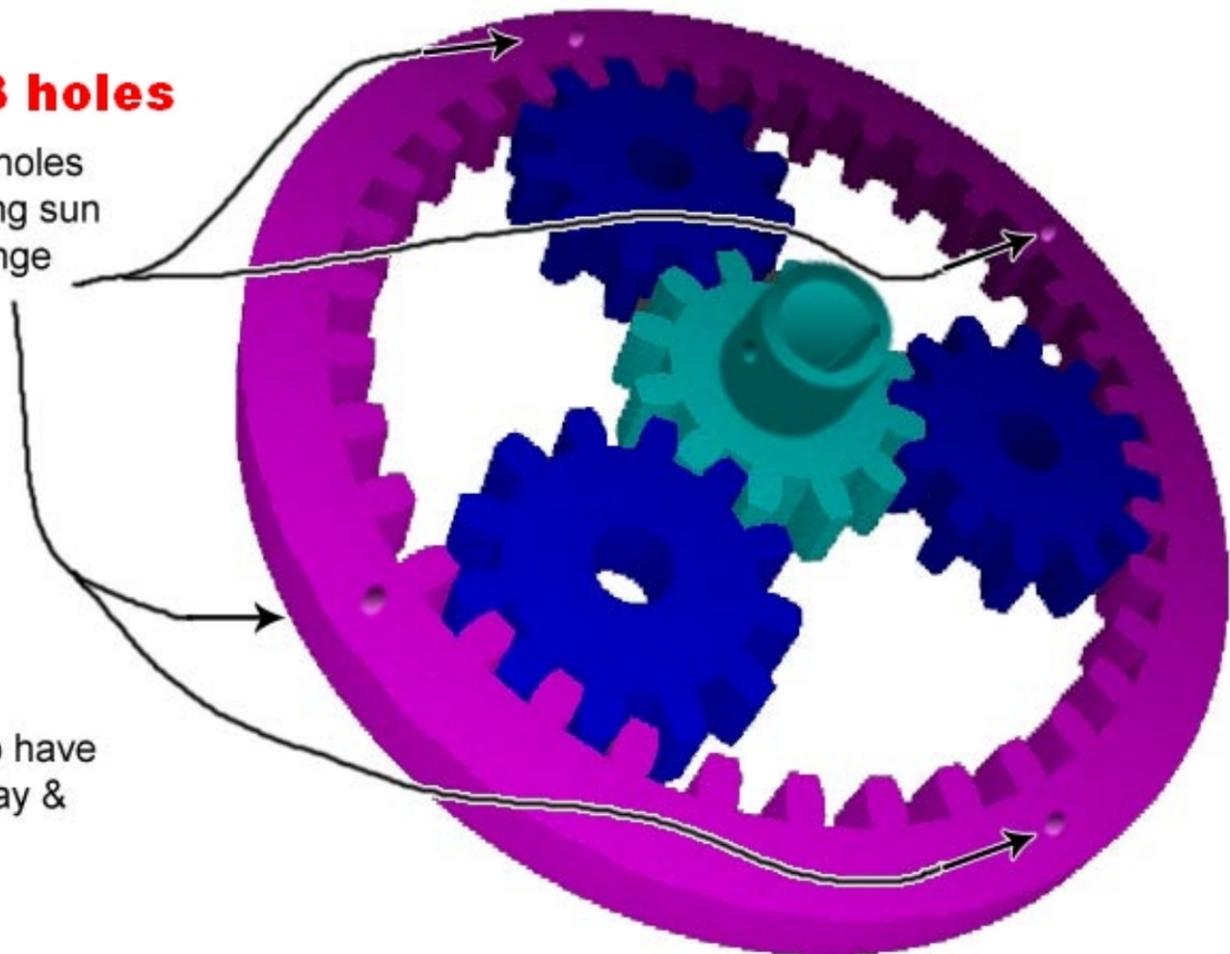
CBO: Clint Lawter 480-309-5289

Sales & legalities

Need 8 holes

Threaded holes
for fastening sun
gear to flange

Sun gear to have
 $\frac{3}{16}$ " keyway &
set-screw



GEAR & HUB
AS ONE UNIT

2" ID

CURRENT STAND

1.973"
OD

OUTER GEAR
CONNECTOR

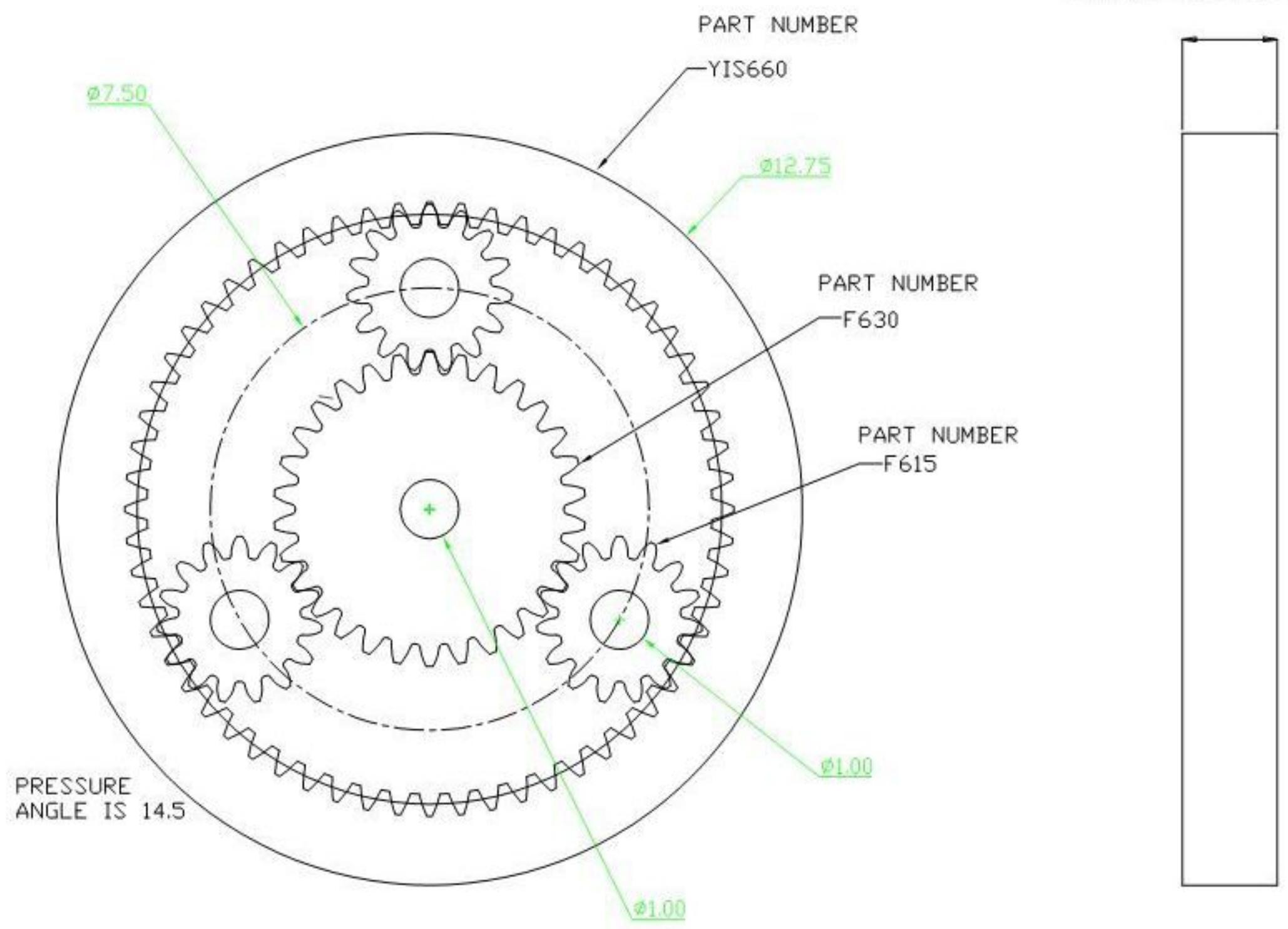
DESIGNED &
FURNISHED BY FESP

APPROXIMATELY
8 INCHES BASE
TO CENTER



Fuel and Energy Savings Products

THICKNESS VARIES PER PART NUMBER



PRESSURE
ANGLE IS 14.5

http://www.rushgears.com/Tech_Tools/PartSearch8/partSearch.php?gearType=INTERNAL