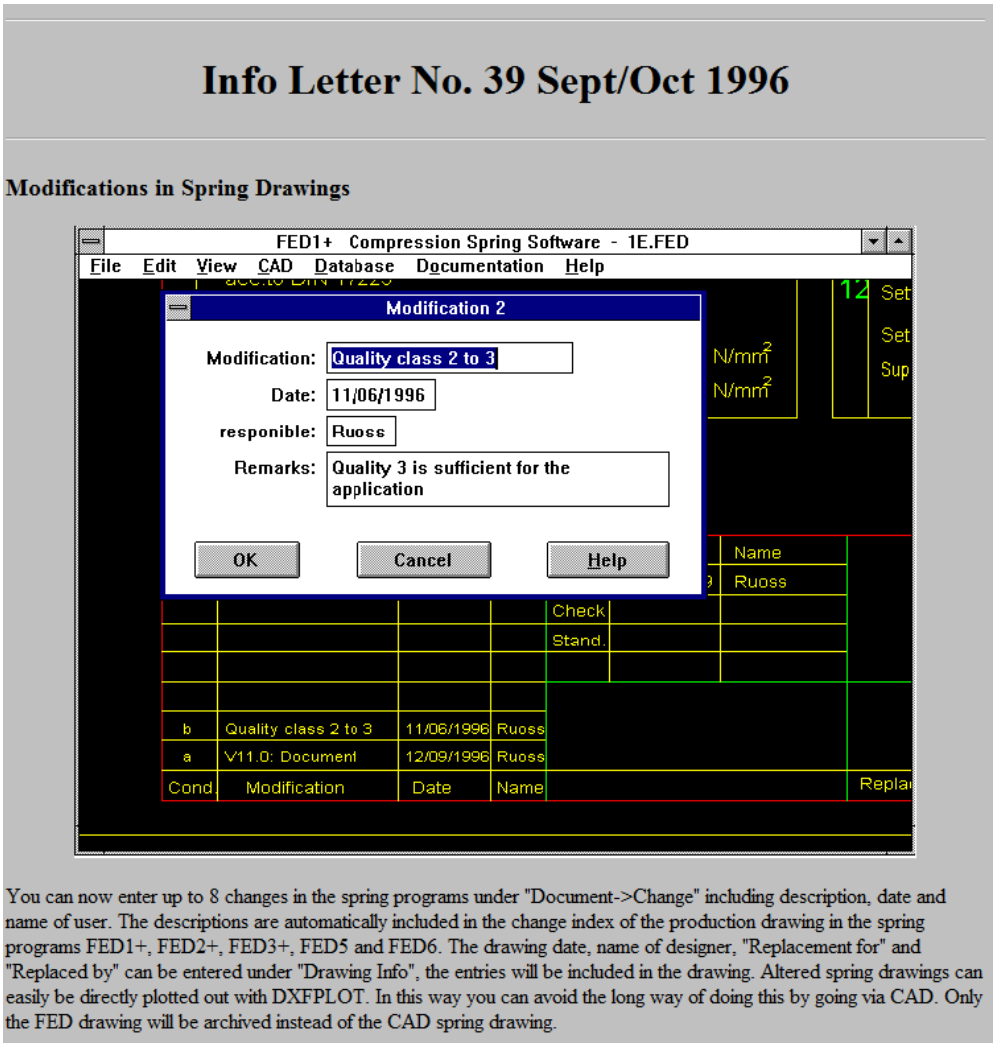
HEXAGON Newsletter 200 July / August 2023

by Fritz Ruoss

33 Years HEXAGON Newsletter



Newsletter 200: the HEXAGON newsletter is published every 2 months, thus for 400 months or more than 33 years. The first information letter was sent to customers in 1990, at that time still as a real letter on paper, sent by the German Federal Post Office. Internet and e-mail did not yet exist as a commercial application (worldwide distribution began in 1993 with the first web browsers). Companies like Google and Facebook didn't exist back then. HEXAGON already existed. HEXAGON engineering software ran under MS-DOS on IBM PC or compatible. The programs were delivered on diskettes and sent as a package with a printed manual.

Since 1996, HEXAGON software and the newsletter are available in English.

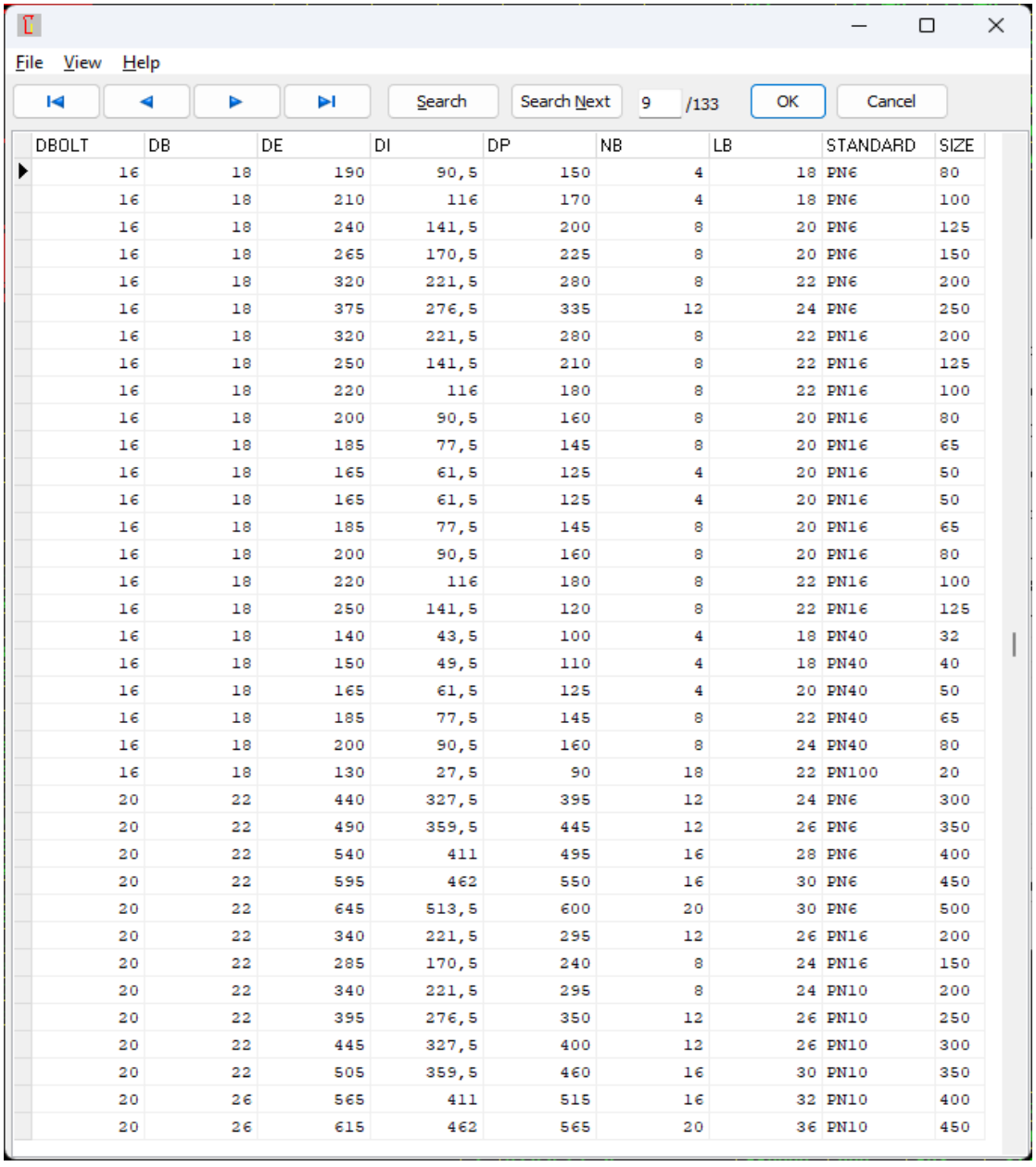
In 1993 there was the first Windows version (16-bit) for Windows 3.1, followed in 1998 by 32-bit Windows versions for Windows 95, Windows 98 and Windows NT.

In 2002 there were Unix versions for Linux. These were discontinued in 2008 due to lack of demand. MS-DOS versions are also no longer offered, although they were in demand for a surprisingly long time.

While many software vendors have switched their license model to a subscription with monthly or annual license fees for the customer, we have retained the old license model that the license once purchased is valid forever, or at least for 10 years (if it is not misused).

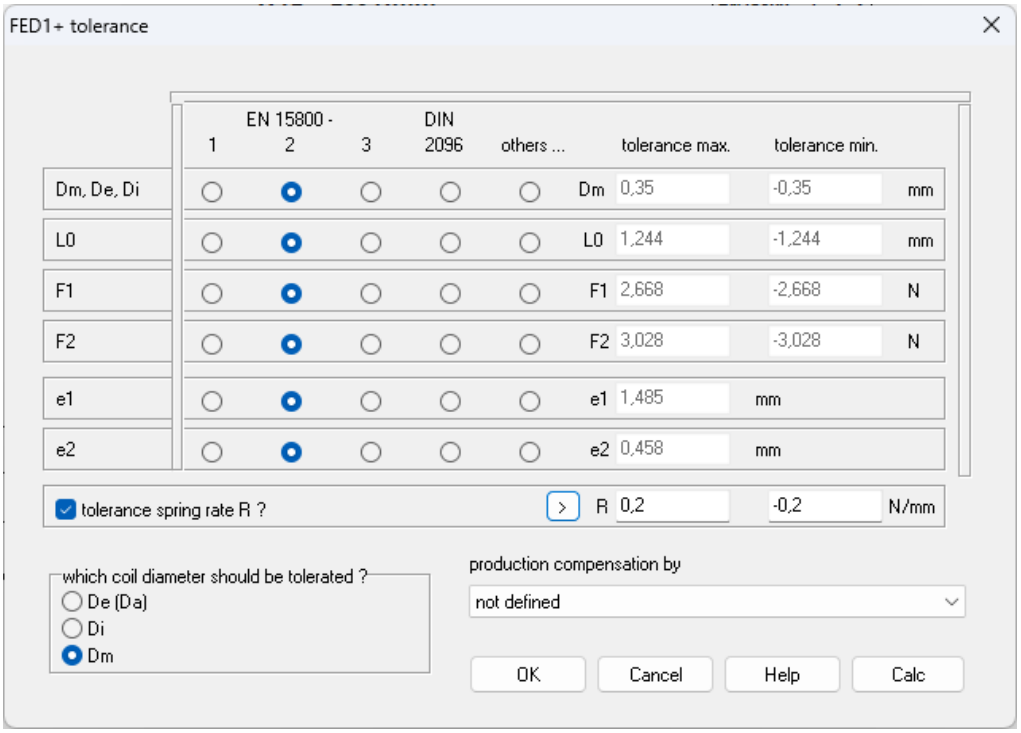
SR1+: Flange Database

Entering the dimensions of the inner, outer and bolt circle diameter of the circular flange is now easier by simply selecting circular flanges according to EN 1092-1 from the database in sizes PN 6 to PN 100.



DBOLT	DB	DE	DI	DP	NB	LB	STANDARD	SIZE
16	18	190	90,5	150	4	18	PN6	80
16	18	210	116	170	4	18	PN6	100
16	18	240	141,5	200	8	20	PN6	125
16	18	265	170,5	225	8	20	PN6	150
16	18	320	221,5	280	8	22	PN6	200
16	18	375	276,5	335	12	24	PN6	250
16	18	320	221,5	280	8	22	PN16	200
16	18	250	141,5	210	8	22	PN16	125
16	18	220	116	180	8	22	PN16	100
16	18	200	90,5	160	8	20	PN16	80
16	18	185	77,5	145	8	20	PN16	65
16	18	165	61,5	125	4	20	PN16	50
16	18	165	61,5	125	4	20	PN16	50
16	18	185	77,5	145	8	20	PN16	65
16	18	200	90,5	160	8	20	PN16	80
16	18	220	116	180	8	22	PN16	100
16	18	250	141,5	120	8	22	PN16	125
16	18	140	43,5	100	4	18	PN40	32
16	18	150	49,5	110	4	18	PN40	40
16	18	165	61,5	125	4	20	PN40	50
16	18	185	77,5	145	8	22	PN40	65
16	18	200	90,5	160	8	24	PN40	80
16	18	130	27,5	90	18	22	PN100	20
20	22	440	327,5	395	12	24	PN6	300
20	22	490	359,5	445	12	26	PN6	350
20	22	540	411	495	16	28	PN6	400
20	22	595	462	550	16	30	PN6	450
20	22	645	513,5	600	20	30	PN6	500
20	22	340	221,5	295	12	26	PN16	200
20	22	285	170,5	240	8	24	PN16	150
20	22	340	221,5	295	8	24	PN10	200
20	22	395	276,5	350	12	26	PN10	250
20	22	445	327,5	400	12	26	PN10	300
20	22	505	359,5	460	16	30	PN10	350
20	26	565	411	515	16	32	PN10	400
20	26	615	462	565	20	36	PN10	450

FED1+: Tolerance of Spring Rate

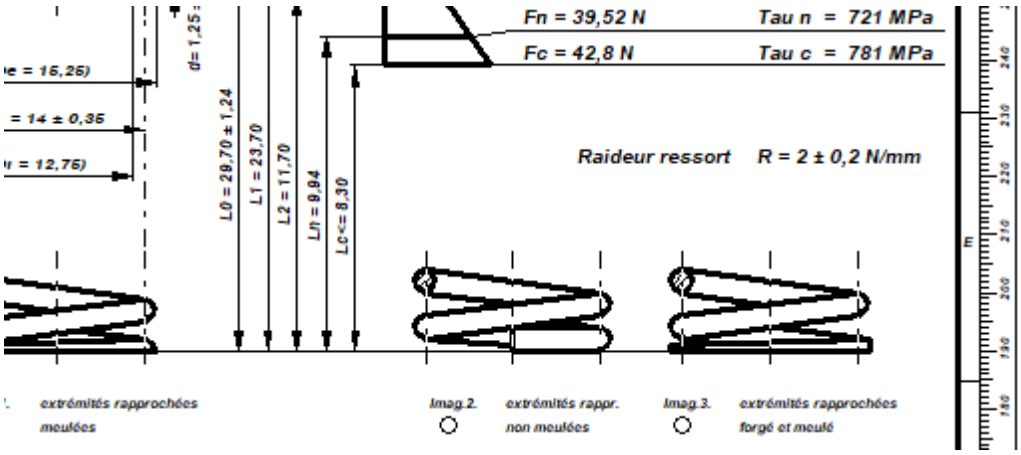


In FED1+ you can optionally enter a tolerance for the spring rate R. A value is suggested with the "<" button. The question is asked again and again how this default value is determined:

Spring rate tolerance R = min(tol F2o – tol F2u, tol F1o – tol F1u) / sc

F1,2o,u is the upper and lower tolerance of the spring forces F1 and F2
sc is the block deflection

FED1+ Production Drawing International:
Spring rate with or without tolerance is shown without brackets.



HEXAGON PRICE LIST 2023-09-01

Base price for single licences (perpetual)	EUR
DI1 Version 2.2 O-Ring Seal Software	190.-
DXF-Manager Version 9.1	383.-
DXFPLOT V 3.2	123.-
FED1+ V31.8 Helical Compression Springs incl. spring database, animation, relax., 3D,..	695.-
FED2+ V22.3 Helical Extension Springs incl. Spring database, animation, relaxation, ...	675.-
FED3+ V21.9 Helical Torsion Springs incl. prod.drawing, animation, 3D, rectang.wire, ...	600.-
FED4 Version 8.0 Disk Springs	430.-
FED5 Version 17.5 Conical Compression Springs	741.-
FED6 Version 18.4 Nonlinear Cylindrical Compression Springs	634.-
FED7 Version 15.5 Nonlinear Compression Springs	660.-
FED8 Version 7.5 Torsion Bar	317.-
FED9+ Version 7.0 Spiral Spring incl. production drawing, animation, Quick input	490.-
FED10 Version 4.5 Leaf Spring	500.-
FED11 Version 3.6 Spring Lock and Bushing	210.-
FED12 Version 2.7 Elastomer Compression Spring	220.-
FED13 Version 4.3 Wave Spring Washers	228.-
FED14 Version 2.8 Helical Wave Spring	395.-
FED15 Version 1.7 Leaf Spring (simple)	180.-
FED16 Version 1.4 Constant Force Spring	225.-
FED17 Version 2.3 Magazine Spring	725.-
FED19 Version 1.0 Buffer Spring	620.-
GEO1+ V7.5 Cross Section Calculation incl. profile database	294.-
GEO2 V3.3 Rotation Bodies	194.-
GEO3 V4.0 Hertzian Pressure	205.-
GEO4 V5.3 Cam Software	265.-
GEO5 V1.0 Geneva Drive Mechanism Software	218.-
GEO6 V1.0 Pinch Roll Overrunning Clutch Software	232.-
GEO7 V1.0 Internal Geneva Drive Mechanism Software	219.-
GR1 V2.2 Gear construction kit software	185.-
GR2 V1.2 Eccentric Gear software	550,-
HPGL Manager Version 9.1	383.-
LG1 V7.0 Roll-Contact Bearings	296.-
LG2 V3.1 Hydrodynamic Plain Journal Bearings	460.-
SR1 V25.1 Bolted Joint Design	640.-
SR1+ V25.1 Bolted Joint Design incl. Flange calculation	750.-
TOL1 V12.0 Tolerance Analysis	506.-
TOL2 Version 4.1 Tolerance Analysis	495.-
TOLPASS V4.1 Library for ISO tolerances	107.-
TR1 V6.5 Girder Calculation	757.-
WL1+ V21.9 Shaft Calculation incl. Roll-contact Bearings	945.-
WN1 V12.4 Cylindrical and Conical Press Fits	485.-
WN2 V11.4 Involute Splines to DIN 5480	250.-
WN2+ V11.4 Involute Splines to DIN 5480 and non-standard involute splines	380.-
WN3 V 6.0 Parallel Key Joints to DIN 6885, ANSI B17.1, DIN 6892	245.-
WN4 V 6.1 Involute Splines to ANSI B 92.1	276.-
WN5 V 6.1 Involute Splines to ISO 4156 and ANSI B 92.2 M	255.-
WN6 V 4.1 Polygon Profiles P3G to DIN 32711	180.-
WN7 V 4.1 Polygon Profiles P4C to DIN 32712	175.-
WN8 V 2.6 Serration to DIN 5481	195.-
WN9 V 2.4 Spline Shafts to DIN ISO 14	170.-
WN10 V 4.4 Involute Splines to DIN 5482	260.-
WN11 V 2.0 Woodruff Key Joints	240.-
WN12 V 1.2 Face Splines	256.-
WN13 V 1.0 Polygon Profiles PnG	238.-
WN14 V 1.0 Polygon Profiles PnC	236.-
WNXE V 2.3 Involute Splines – dimensions, graphic, measure	375.-
WNXK V 2.2 Serration Splines – dimensions, graphic, measure	230.-
WST1 V 10.2 Material Database	235.-
ZAR1+ V 27.0 Spur and Helical Gears	1115.-

ZAR2 V8.2 Spiral Bevel Gears to Klingelnberg	792.-
ZAR3+ V10.5 Cylindrical Worm Gears	620.-
ZAR4 V6.4 Non-circular Spur Gears	1610.-
ZAR5 V12.7 Planetary Gears	1355.-
ZAR6 V4.3 Straight/Helical/Spiral Bevel Gears	585.-
ZAR7 V2.6 Plus Planetary Gears	1380.-
ZAR8 V2.2 Ravigneaux Planetary Gears	1950.-
ZAR9 V1.0 Cross-Helical Screw Gears	650.-
ZARXP V2.6 Involute Profiles - dimensions, graphic, measure	275.-
ZAR1W V2.7 Gear Wheel Dimensions, tolerances, measure	450.-
ZM1.V3.0 Chain Gear Design	326.-
ZM2.V1.0 Pin Rack Drive Design	320.-
ZM3.V1.1 Synchronous Belt Drive Design	224.-

PACKAGES	**EUR**
HEXAGON Mechanical Engineering Package (TOL1, ZAR1+, ZAR2, ZAR3+, ZAR5, ZAR6, WL1+, WN1, WN2+, WN3, WST1, SR1+, FED1+, FED2+, FED3+, FED4, ZARXP, TOLPASS, LG1, DXFPLOT, GEO1+, TOL2, GEO2, GEO3, ZM1, ZM3, WN6, WN7, LG2, FED12, FED13, WN8, WN9, WN11, DI1, FED15, GR1)	8,500.-
HEXAGON Mechanical Engineering Base Package (ZAR1+, ZAR3+, ZAR5, ZAR6, WL1+, WN1, WST1, SR1+, FED1,+, FED2+, FED3+)	4,900.-
HEXAGON Spur Gear Package (ZAR1+ and ZAR5)	1,585.-
HEXAGON Planetary Gear Package (ZAR1+, ZAR5, ZAR7, ZAR8, GR1)	3,600.-
HEXAGON Involute Spline Package (WN2+, WN4, WN5, WN10, WNXE)	-1200
HEXAGON Graphic Package (DXF-Manager, HPGL-Manager, DXFPLOT)	741.-
HEXAGON Helical Spring Package (FED1+, FED2+, FED3+, FED5, FED6, FED7)	2,550.-
HEXAGON Complete Spring Package (FED1+, FED2+, FED3+, FED4, FED5, FED6, FED7, FED8, FED9+, FED10, FED11, FED12, FED13, FED14,, FED15, FED16, FED17, FED19)	4,985.-
HEXAGON Tolerance Package (TOL1, TOL1CON, TOL2, TOLPASS)	945.-
HEXAGON Complete Package (All Programs)	14,950.-

Quantity Discount for Individual Licenses

Licenses	2	3	4	5	6	7	8	9	>9
Discount %	25%	27.5%	30%	32.5%	35%	37.5%	40%	42.5%	45%

Network Floating License

Licenses	1	2	3	4	5	6	7..8	9..11	>11
Discount/Add.cost	-50%	-20%	0%	10%	15%	20%	25%	30%	35%

(Negative Discount means additional cost)

Language Version:
- **German and English :** all Programs
- **French**: FED1+, FED2+, FED3+, FED4, FED5, FED6, FED7, FED9+, FED10, FED13, FED14, FED15, TOL1, TOL2.
- **Italiano**: FED1+, FED2+, FED3+, FED4, FED5, FED6, FED7, FED9+, FED13, FED14, FED17.
- **Swedish**: FED1+, FED2+, FED3+, FED5, FED6, FED7.
- **Portugues**: FED1+, FED17
- **Spanish**: FED1+, FED2+, FED3+, FED17

Updates:
Software Update Windows: 40 EUR, Update Win64: 50 EUR
Update Mechanical Engineering Package: 800 EUR, Update Complete Package: 1200 EUR
Maintenance contract for free updates: annual fee: 150 EUR + 40 EUR per program

Hexagon Software Network Licenses
Floating License in the time-sharing manner by integrated license manager.

Conditions for delivery and payment
Delivery by Email or download (zip file, manual as pdf files): EUR 0.
General packaging and postage costs for delivery on CD-ROM: EUR 60, (EUR 25 inside Europe)
Conditions of payment: bank transfer in advance with 2% discount, or PayPal (paypal.me/hexagoninfo) net.
After installation, software has to be released by key code. Key codes will be sent after receipt of payment.
Fee for additional key codes: 40 EUR

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