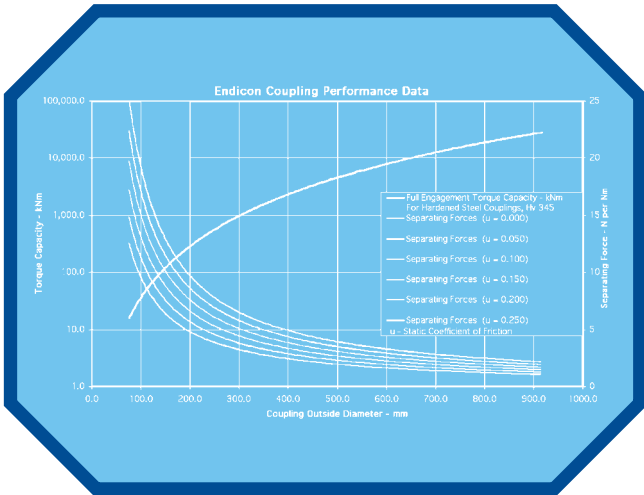
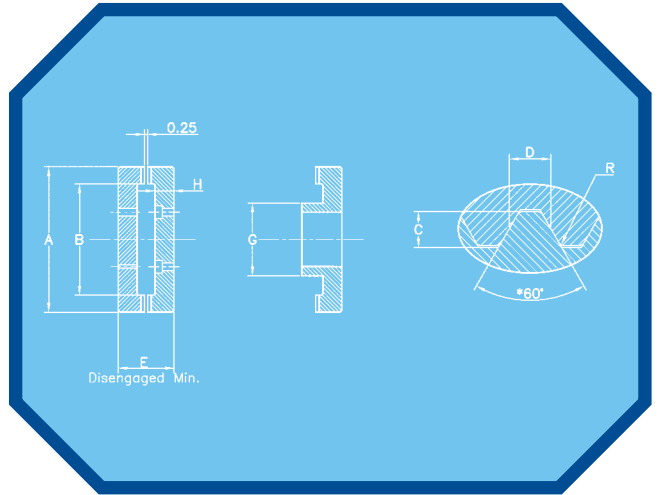
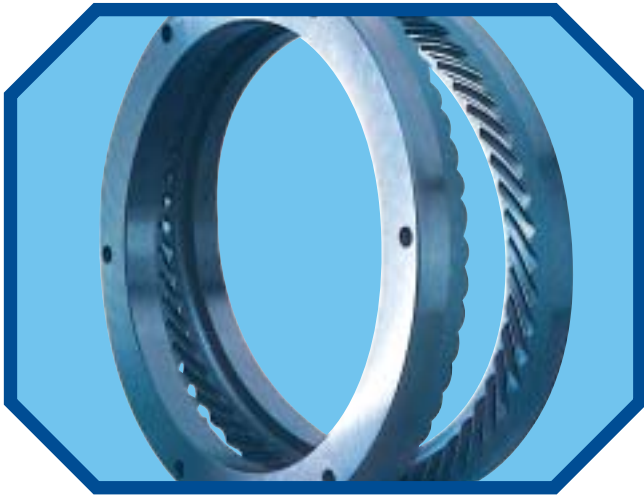


ENDICON™

Coupling & Index Systems

DAVALL GEARS



HIGH PRECISION • ACCURATE INDEXING • PRECISE REPEATABILITY • HIGH TORQUE

Driven By Quality.

Endicon™ Index and coupling rings – A Unique Design

The patented Endicon coupling or index ring set consists of two halves with each being a mirror image of the other. Depending on the outside diameter of the Endicon ring, it can be manufactured with 20 to as many as 3000 teeth or more. When in intimate contact, the teeth of one member fit into the spaces of the other member so that the convex side of a tooth contacts the concave side of the tooth of its opposite member. These uniformly spaced curved teeth provide a positive high strength coupling when held in tight mesh. As a result, an Endicon ring set, whether used as a precise indexing device or as a power transmitting coupling, forms a torsionally rigid, zero backlash truly self-centring interface.



Benefits

Patented curved tooth design provides excellent cam action in and out of mesh, making Endicon™ index rings truly self-centring, and forming a rigid zero backlash interface. Endicon™ couplings allow for a hub extension on the tooth side of one coupling half (not possible on radial tooth face type couplings).



Full flank tooth contact provides an extremely rigid or stiff coupling interface capable of transmitting very high loads.

Extremely high numbers of teeth enable Endicon™ ring sets to be used in precise indexing applications calling for angular indexes of less than one degree with true position accuracy within ± 3 seconds of arc.

Continuous machining of teeth provides uniformity of tooth spacing resulting in angular position repeatability of 1 micron or better, and improving with use.

Variable tooth geometry (number of teeth, size and pressure angles) helps meet specific performance requirements; full radius tooth tips promote easier tooth engagement, and the varying of pressure angles can increase or decrease separating forces.

Choice of materials - Endicon™ ring sets can be made from virtually any solid material to meet customer performance and budget objectives.

"Task Specific" design capability provides custom solutions to a variety of applications.

Uses

An Endicon™ ring set can be used as a precise indexing device or as a face type coupling. While Endicon™ rings are useful in many applications, they are particularly valuable for these requirements:

1. Where space and/or weight limitations do not allow a conventional shaft coupling.
2. Where keys or splines are not sufficient for the torque load, or require excessive axial clearances for component assembly and disassembly.
3. Where accurate finite incremental indexing of one member with respect to other is required.
4. Where quick disengagement is required.
5. Where maximum rigidity is required.
6. Where positive engagement of two components must also be on a common centre.

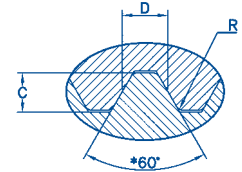
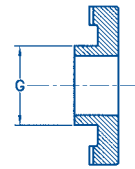
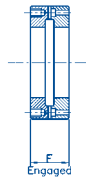
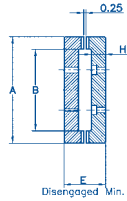


Advantages

Endicon™ rings offer these advantages:

1. For indexing, Endicons curved teeth provide excellent cam action in and out of mesh.
2. Endicon™ couplings make possible extremely short axial disengaging distances.
3. Our full flank tooth contact maximises stiffness.
4. Full radius tooth tips provide for easy engagement.

This design manual is provided to furnish the design engineer with preliminary information for the specifications of Endicon™ coupling and index rings. Our engineering personnel are on call, ready to provide technical assistance through all phases of your design program.

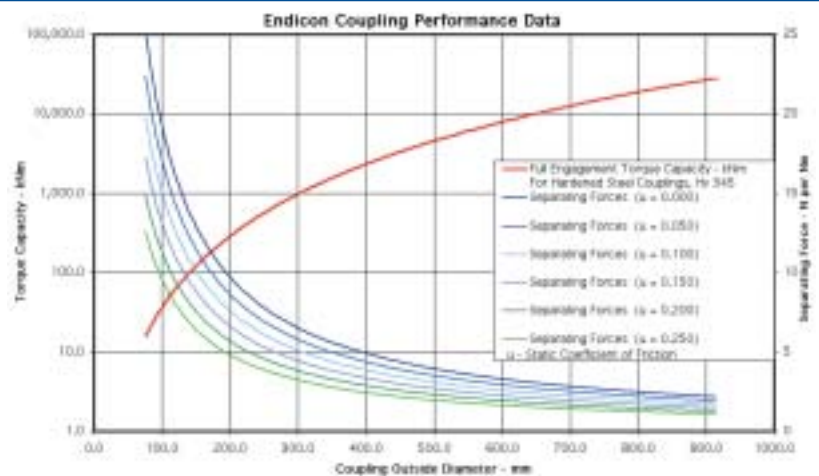
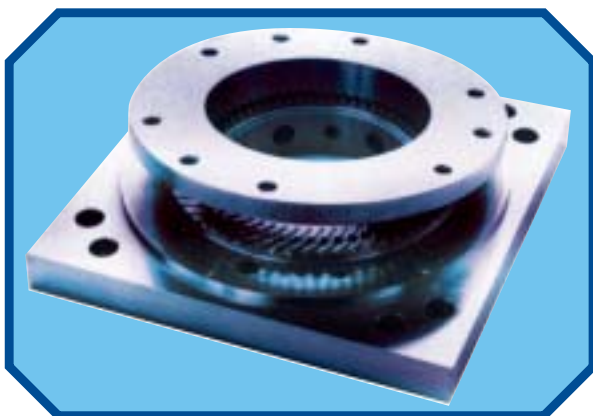


Dimensions

Coupling OD A	No Of Teeth	I.D. B	Tooth Depth C	Normal Tooth Thickness D	Axial Movement E-F	Max Hub Dia. G	Min. Thickness H	Full Engagement Torque Capacity - kNm "For Hardened Steel Couplings, Hv 345"
76.2	30	63.5	2.794	2.489	2.769	44.0	12.7	12.8
76.2	60	63.5	1.422	1.219	1.676	46.8	12.7	12.8
76.2	90	63.5	0.965	0.787	1.067	47.7	12.7	12.9
114.3	30	88.9	4.140	3.708	4.394	58.0	19.1	55.6
114.3	60	88.9	2.083	1.803	2.108	67.6	19.1	55.2
114.3	90	88.9	1.397	1.194	1.473	69.1	19.1	55.6
114.3	120	88.9	1.067	0.889	1.321	70.1	19.1	56.1
152.4	60	114.3	2.743	2.388	2.997	87.9	25.4	144.8
152.4	90	114.3	1.829	1.575	2.083	89.6	25.4	145.2
152.4	120	114.3	1.397	1.168	1.651	91.3	25.4	146.2
152.4	180	114.3	0.965	0.787	1.219	93.1	25.4	148.7
203.2	60	155.6	3.632	3.200	3.556	121.0	31.8	322.9
203.2	90	155.6	2.438	2.108	2.438	124.3	31.8	323.0
203.2	120	155.6	1.854	1.575	1.880	126.9	31.8	324.5
203.2	180	155.6	1.245	1.041	1.346	128.7	31.8	327.9
203.2	270	155.6	0.864	0.686	0.965	130.5	31.8	334.5
304.8	90	241.3	3.607	3.175	3.531	194.0	50.8	969.2
304.8	120	241.3	2.718	2.362	2.692	197.2	50.8	970.4
304.8	180	241.3	1.829	1.549	1.880	200.5	50.8	975.9
304.8	270	241.3	1.245	1.041	1.346	203.8	50.8	988.5
304.8	360	241.3	0.940	0.762	1.067	205.5	50.8	1,002.3
609.6	90	476.3	7.188	6.375	6.858	392.4	88.9	8,090.9
609.6	120	476.3	5.436	4.775	5.207	407.4	88.9	8,121.7
609.6	180	476.3	3.658	3.175	3.556	421.6	88.9	8,161.1
609.6	270	476.3	2.438	2.108	2.464	427.1	88.9	8,178.0
609.6	360	476.3	1.854	1.575	1.905	430.8	88.9	8,218.5
609.6	540	476.3	1.245	1.041	1.346	434.6	88.9	8,316.6
609.6	720	476.3	0.965	0.787	1.067	438.3	88.9	8,438.2
914.4	180	711.2	5.334	4.674	5.131	585.9	127.0	27,347.3
914.4	270	711.2	3.607	3.099	3.505	611.6	127.0	27,501.0
914.4	360	711.2	2.718	2.311	2.692	620.5	127.0	27,612.0
914.4	540	711.2	1.829	1.549	1.880	629.5	127.0	27,857.7
914.4	720	711.2	1.397	1.143	1.473	638.6	127.0	28,148.7

Performance

All dimensions in mm



All statements, technical information and recommendations are based on tests we believe to be reliable and accurate, however; it is not guaranteed for the Buyer's application. Buyer shall determine the suitability of the product for the intended use



Davall Gears
Custom gear manufacture



Davall Stock Gears
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Spiradrive®
Zero backlash gears and gearboxes



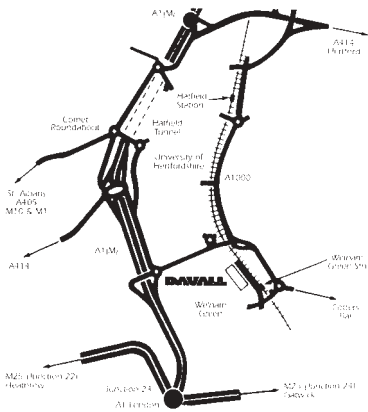
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