

Edition
2020

FKL[®]

MADE IN SERBIA

FACTORY OF ROLLING BEARINGS
AND CARDAN SHAFTS

AGRO POINT HUBS

The integrated solutions
for modern agricultural attachments





AGRO POINT
IL10



AGRO POINT
IL40



AGRO POINT
IL20



AGRO POINT
IL50



AGRO POINT
IL30



AGRO POINT
IL60

AGRO POINT HUBS

The integrated solutions for
modern agricultural attachments

Demand of today's agricultural market is permanent increasing of productivity respecting the environment at the same time.

Agricultural equipment should satisfy a very rigid and demandable conditions of farmers: longer, harder and faster operating with minimal work stops.

In order to satisfy a modern tendency in agricultural equipment development, FKL has developed the **AGRO POINT** product line. In combination with discs this bearing hub is designed to work in various agricultural applications.

Our goal is to propose a complete range of modern hubs in order to have a ready solutions for any agricultural machinery.

Each model of hub has a certain loading capacity and basic dimensions but, mounting dimensions could be customer tailored solutions.

Considering that time is the most important factor for farmers, **AGRO POINT** product line is made as a long-term integral solution which doesn't require maintenance or service and simply to be replaced after its lifetime.

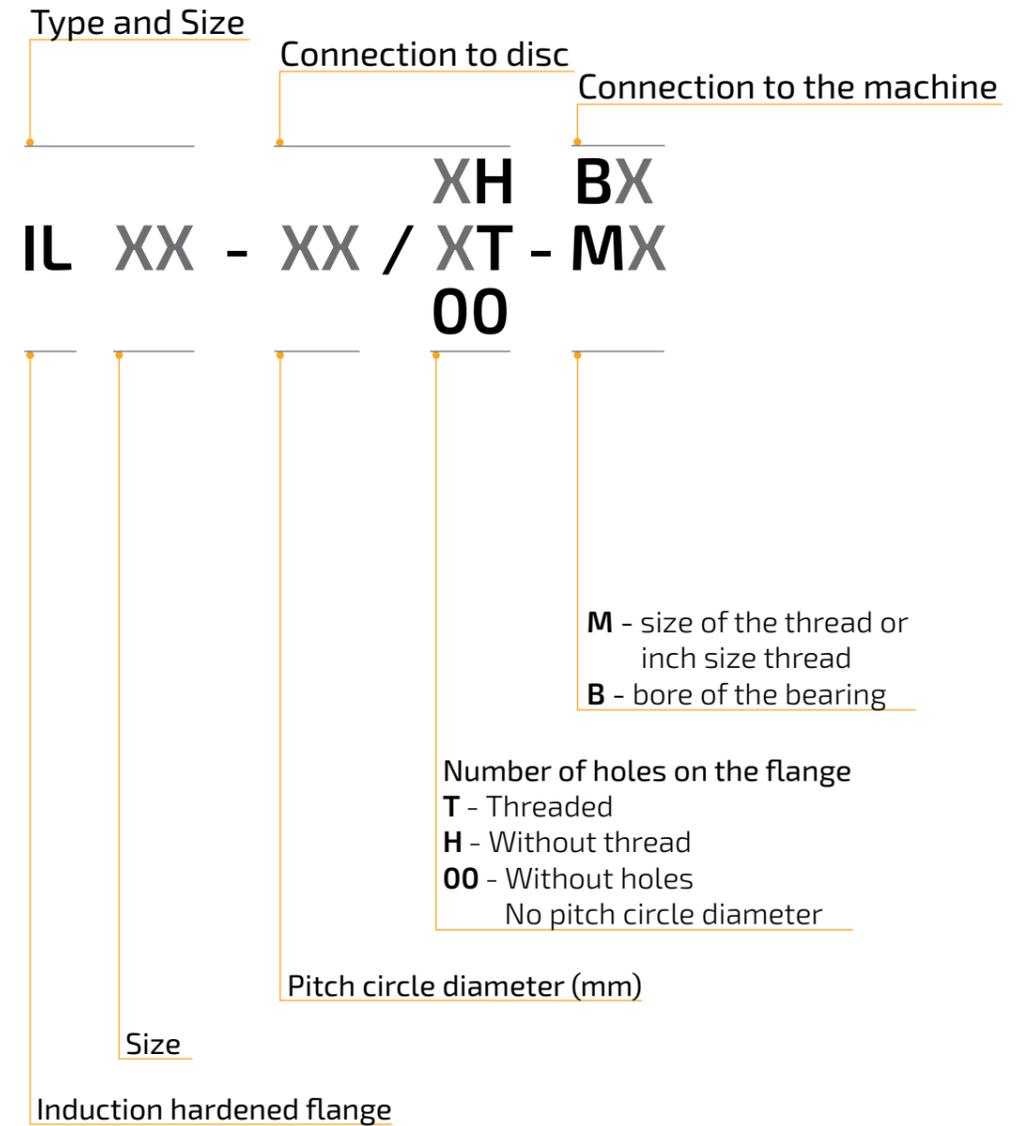
FKL **AGRO POINT** helps to reduce the lubricant consumption and its unique sealing solution reduces possible soil contamination.

Sealing Type Overview

Flange side/Open side	Cross section	Flange side/Open side	Cross section
RS seal/Triple lip seal <i>Machine: Seed Drills</i>		Metal protective cap+S seal/ Triple lip seal <i>Machine: Seed Drills</i>	
S seal/ Double triple lip seal+ Strong metal shield <i>Machine: Seed Drills</i>		O-ring+S seal/ Triple lip seal <i>Machine: Seed Drills</i>	
Triple lip seal/ Triple lip seal <i>Machine: Seed Drills</i>		O-ring+Metal protective cap+S seal/ Double triple lip seal+ Strong metal shield <i>Machine: Seed Drills</i>	
Triple lip seal/ S seal+Metal protective cap <i>Machine: Seed Drills</i>		O-ring+Metal protective cap+RS seal/ RS seal+Dirtblock seal+ Cover plate <i>Machine: Disc Harrows</i>	
Metal protective cap+S seal/ Triple lip seal+Cover plate <i>Machine: Seed Drills</i>		O-ring+Metal protective cap+S seal/ S seal+Dirtblock seal+ Cover plate <i>Machine: Disc Harrows</i>	

Specific seal design could be recommended and developed by our application engineers in order to provide the best solution for specific application and typical environment.

AGRO POINT Designation System



AGRO POINT IL10

BEARING SOLUTION FOR SEEDING MACHINES, INTEGRATED FLANGE AND SHAFT

PRODUCT DESCRIPTION

AGRO POINT IL10 offers improved hub solution to support producers of seeders. Optimized internal hub design, four-point contact ball bearing, zinc coated flange made from forging and split inner ring which allows higher load rating, make this solution more reliable for the seed drills operation.

ADVANTAGES

Extended product reliability

- Two inner rings are "connected" by small overlap between them where the one inner ring is the shaft at the same time.
- More reliable than simply "connection" of two thinner rings by light metal-sheet ring.
- Could be mounted between two discs from inside.
- Higher load rating provides longer life time.
- Integrated shaft – no needs for screw supply and mounting which means easier mounting and saving the mounting time.
- Increased reliability of this solution due to much robust inner construction.

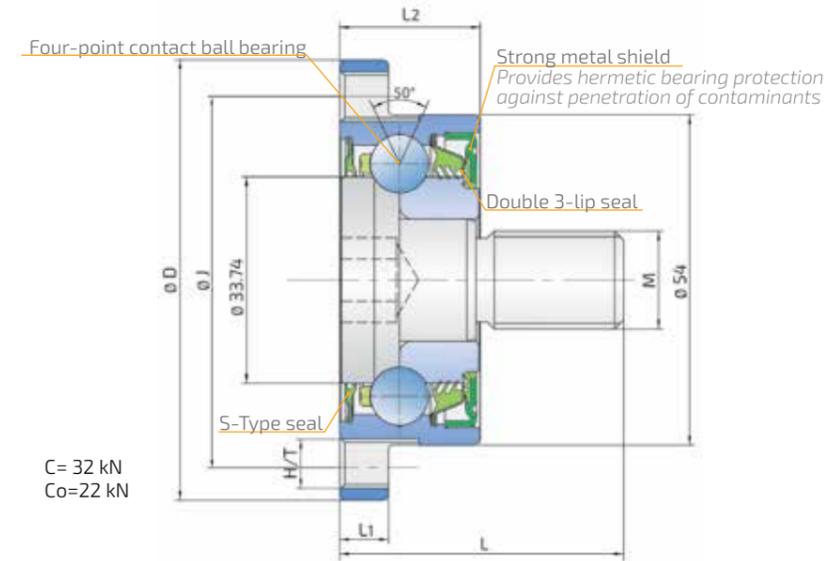


GREATER PROFIT OPPORTUNITIES

- Reduction of assembly and labor costs due to easy mounting and replacement.
- Maximizing profit rate of the Buyer by using of high quality level unit per optimized price.

AGRO POINT IL10

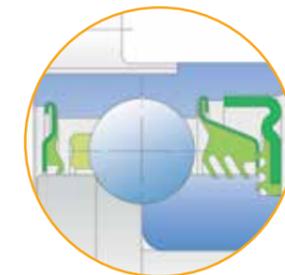
BEARING SOLUTION FOR SEEDING MACHINES, INTEGRATED FLANGE AND SHAFT



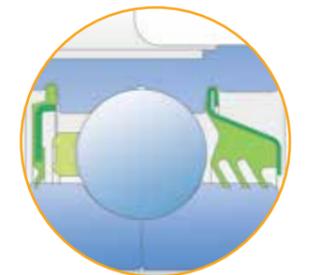
IL10	J	D	H/T	M	L	L ₁	L ₂	kg
IL10-60/6T-M16 RH	60	72	6xM8x1	M16x1.5 right hand	46.5	8	23	0.41
IL10-60/6T-M16 LH	60	72	6xM8x1	M16x1.5 left hand	44.5	8	23	0.41

ADDITIONAL OPTIONS

- Different number of holes;
- Different hole distance;
- Different shaft;
- Hole/thread option;
- Other similar modifications.



S seal /
double triple lip seal



RS seal/
triple lip seal

MOUNTING INSTRUCTIONS

- Hexagon screws M8x1, class 8 with helical spring washer;
- Disc diameter: up to 400 mm;
- Required tools: Torque wrench with hexagon socket: size 24 (M16), Torque 130 Nm.



AGRO POINT IL20

BEARING SOLUTION FOR SEEDING MACHINES, INTEGRATED FLANGE

PRODUCT DESCRIPTION

AGRO POINT IL20 offers improved hub solution to support producers of seeders. Optimized internal hub design, four-point contact ball bearing, with integrated flange gives the possibility for higher loads, faster and more reliable operating of seeding machines.

ADVANTAGES

Extended product reliability

- Forged flange increases the rigidity of the hub and prevents deformation at mounting and operating.
- Longer hub's life span due to powerful sealing and bigger loading rate for 12% comparing to previous, standard version with double row angular contact ball bearing in metal sheet housing.
- Relubrication free option helps to extend service life and cuts operating costs.
- Zinc-coated flange surface, good anti-corrosion protection.
- Hermetic metal protective cap prevents penetration of dust and humidity.



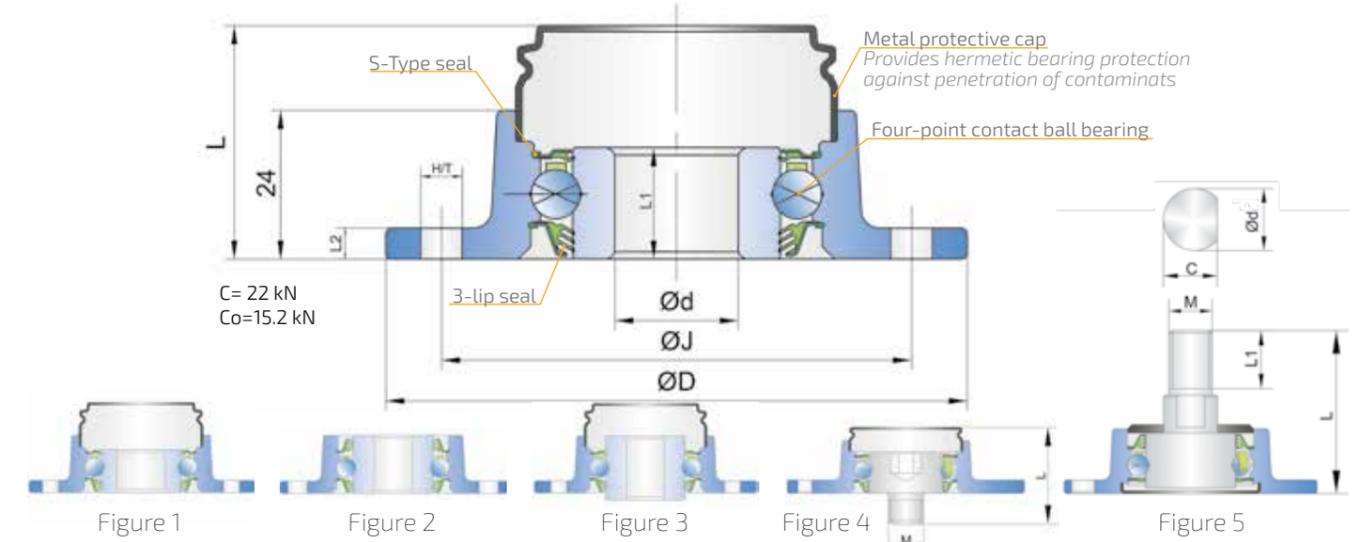
GREATER PROFIT OPPORTUNITIES

- Reduction of assembly and labor costs due to easy mounting and replacement.
- Maximizing profit rate of the Buyer by using of high quality level unit per optimized price.



AGRO POINT IL20

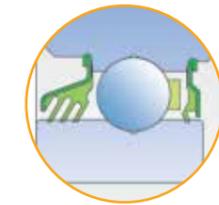
BEARING SOLUTION FOR SEEDING MACHINES, INTEGRATED FLANGE



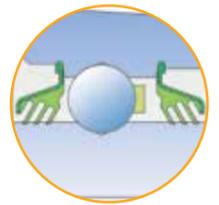
IL20	J	D	H/T	d	M	C	L	L ₁	L ₂	kg	Figure
IL20-70/6T-B12	70	80	6xM6	12.2	-	-	32.5	25.5	5	0.59	3
IL20-73/6H-B16	73.5	94	6x6.5	16	-	-	37.7	27	5	0.6	3
IL20-75/5H-M16-R	75	94	5x6.5	-	M16	-	44	14	5	0.53	4
IL20-75/5H-M16-L	75	94	5x6.5	-	M16-left	-	44	14	5	0.53	4
IL20-75/6H-B16	75	94	6x6.5	16	-	-	37.7	18	5	0.5	1
IL20-75/6H-B17	75	94	6x6.5	17	-	-	37.7	18	5	0.5	1
IL20-75/6H-B17+GK	75	94	6x6.5	17	-	-	37.7	18	5	0.75	1
IL20-75/6H-B20	75	94	6x6.5	20	-	-	37.7	18	5	0.5	1
IL20-79/6H-B16	79.4	94	6x8.1	16	-	-	24	24	5	0.5	2
IL20-80/5H-M16	80	94	5x8.5	20	M16	18.5	60.5	21.5	5	0.59	5
IL20-80/6H-M16	80	94	6x8.5	20	M16	18.5	60.5	21.5	5	0.59	5
IL20-80/6T-M16x2	80	94	6xM8x1.25	20	M16x2	18.5	71.6	21.2	5	0.74	5
IL20-82/5T-B16	82	108	5xM8	16.2	-	-	24	24	6	0.64	2
IL20-92/5H-M16-R	92	108	5x6.5	-	M16	-	44	14	6	0.67	4
IL20-92/5H-M16-L	92	108	5x6.5	-	M16-left	-	44	14	6	0.67	4

ADDITIONAL OPTIONS

- Triple lip sealing on both sides is also available.
- Design flexibility: inner diameter of the hub 16 mm, 17 mm and 20 mm and possibility of different J parameter.



triple lip seal/
S seal



triple lip seal/
triple lip seal

MOUNTING INSTRUCTIONS

- Rivets 6 mm or 1/4";
- Self locking class 8 hex nuts with helical spring washer;
- Disc diameter: up to 400 mm;
- Required tools: Torque wrench with hexagon socket: size 24 (M16), Torque 130 Nm; size 30 (M20), Torque 200 Nm.



AGRO POINT IL30

BEARING SOLUTION FOR HARSH SEEDING, INTEGRATED FLANGE

PRODUCT DESCRIPTION

AGRO POINT IL30 is reinforced version of IL20 for heavy duty seeding machines and working in harsh conditions as well as for coulter discs of ploughs.

It is recommended for use in NO-TILL FARMING technology, also called ZERO TILLAGE or DIRECT SEEDING, due to specific working conditions - 2-3 times bigger loading and harsh seeding conditions.

Application of IL30 in no-till farming implies way of growing crops without disturbing the soil through tillage.

Optimized internal hub design, four-point contact ball bearing, with integrated flange gives the possibility for higher loads, faster and more reliable operating of seeders.



ADVANTAGES

Extended product reliability

- Longer hub's life span due to powerful sealing and increased loading rate for 30% comparing to IL20.
- Relubrication free option helps to extend service life and cut operating costs.
- Zinc-coated flange surface, good anti-corrosion protection.



AGRO POINT IL30

BEARING SOLUTION FOR HARSH SEEDING, INTEGRATED FLANGE

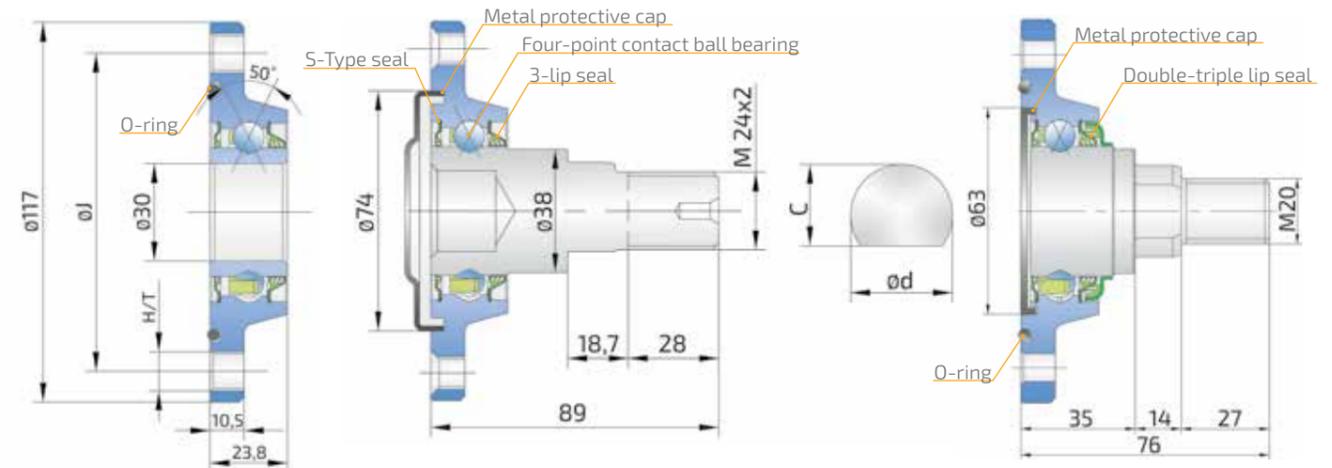
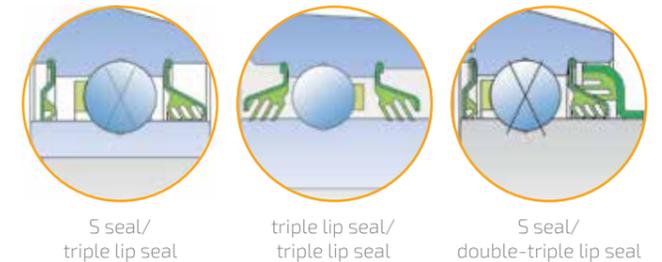


Figure 1 Figure 2 Figure 3
 C= 29.6 kN
 Co=21 kN

IL30	J	H/T	d	C	kg	Figure
IL30-95/6H-M20	95.5	6xM20	28	25.4	1.21	3
IL30-98/4T-B30	98	4xM12x1.25	-	-	0.905	1
IL30-98/5T-B30	98	5xM12x1.25	-	-	0.925	1
IL30-98/4H-B30	98	4xØ10	-	-	0.905	1
IL30-100/4T-M24x2	100	4xM10	30	27.5	1.52	2

ADDITIONAL OPTIONS

- Standard seal design could be improved by triple lip sealing on both sides or double-triple lip sealing on opposite disc side.
- The hub is available with different J parameter, hole patterns and number of holes.



MOUNTING INSTRUCTIONS

- Bolt M12x1.25 mounting torque: 100 Nm;
- Nut torque: 300 Nm;
- Self locking class 8 hex nuts (M22 and M24) with helical spring washer;
- Required tools: Torque wrench with hexagon socket: size 19 (Bolts M12x1,25); size 32 (Nut M22); size 36 (Nut M24).



AGRO POINT IL40

INTEGRATED FLANGE, MAINTENANCE FREE BEARING

PRODUCT DESCRIPTION

AGRO POINT IL40 is FKL's high performance solution for disc harrows, greased and sealed for the life of the hub.

Optimized internal hub design, double row angular contact ball bearing, with integrated flange and Dirtblock sealing option provides a multiple service life of this hub in relation to the traditional one.

ADVANTAGES

- Longer hub's life span due to powerful Dirtblock sealing.
- Higher impact resistance from flange side of the hub due to the thicker forged cover.
- Maintenance free option helps to extend service life and cut operating costs.
- Zinc-coated flange surface, corrosion resistant.
- Easy mounting and replacement.

RECOMMENDED WORKING CONDITIONS

- Tractor speed: 5-20 km/h
- Temperature range: -20 to +50 C
- Disc diameter: from 400 to 560 mm, for disc sizes from 500 to 560 mm with elastic suspension only.



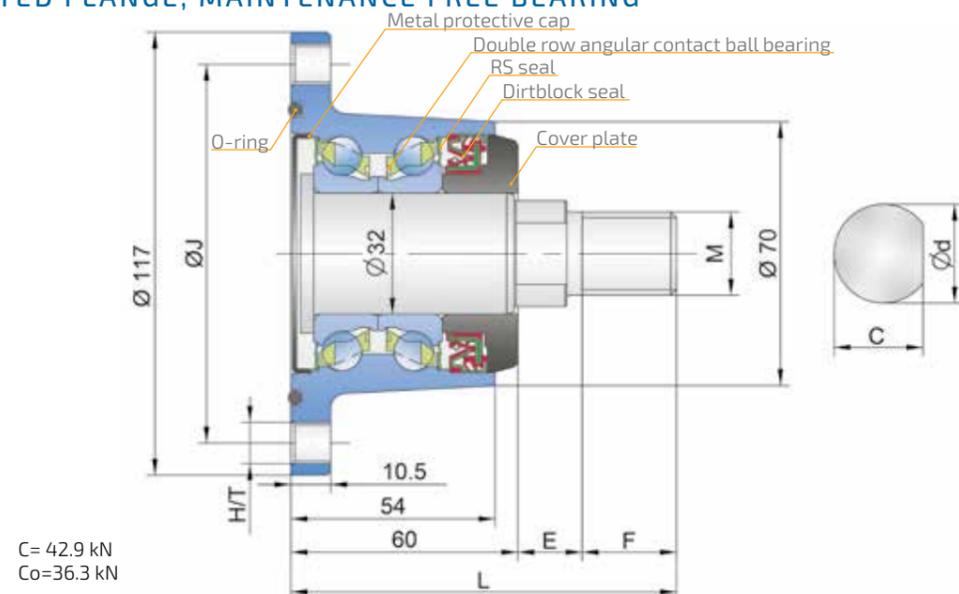
GREATER PROFIT OPPORTUNITIES

- Reduction of assembly and labor costs due to easy mounting and replacement.
- Maximizing profit rate of the Buyer by using of high quality level unit per optimized price.



AGRO POINT IL40

INTEGRATED FLANGE, MAINTENANCE FREE BEARING



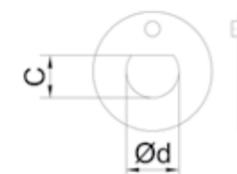
IL40	J	H/T	d	C	M	E	F	L	kg
IL40-98/4T-M22	98	4xM12x1.25	27.95	25.4	M22x1.5	17	25	102	2
IL40-98/5T-M22	98	5xM12x1.25	27.95	25.4	M22x1.5	17	25	102	2
IL40-98/6T-M22	98	6xM12x1.25	27.95	25.4	M22x1.5	17	25	102	2
IL40-98/4T-M24	98	4xM12x1.25	30	27.5	M24x2	17	29	106	2.55
IL40-98/5T-M24	98	5xM12x1.25	30	27.5	M24x2	17	29	106	2.55
IL40-98/6T-M24	98	6xM12x1.25	30	27.5	M24x2	17	29	106	2.55

ADDITIONAL OPTIONS

- Design flexibility: the hub is available with different J parameter, hole patterns and number of holes.
- Aftermarket kit is also available optionally: Agro Point bearing, bolts M12x1.25, special washer, nut M22x1.5.



RS seal/
Dirtblock seal



Available with special
locking spring washer

MOUNTING INSTRUCTIONS

- Bolt M12x1.25 mounting torque: 100 Nm;
- Nut torque: 300 Nm;
- Self locking class 8 hex nuts (M22 and M24) with helical spring washer;
- Required tools: Torque wrench
hexagon socket: size 19 (Bolts M12x1,25);
size 32 (Nut M22);
size 36 (Nut M24).



AGRO POINT IL40M

INTEGRATED FLANGE, MAINTENANCE FREE BEARING

PRODUCT DESCRIPTION

AGRO POINT IL40 M is modified solution of IL40 hub for disc harrows, greased and sealed for the life of the hub.

Bigger and stronger integrated flange, optimized internal hub design, double row angular contact ball bearing, with integrated flange and Dirtblock sealing option provides a multiple service life of this hub in relation to the traditional one.

ADVANTAGES

- Longer hub's life span due to powerful Dirtblock sealing.
- Higher impact resistance and more robust solution than IL40 type.
- Maintenance free option helps to extend service life and cut operating costs.
- Zinc-coated flange surface, corrosion resistant.
- Easy mounting and replacement.

RECOMMENDED WORKING CONDITIONS

- Tractor speed: 5-20 km/h
- Temperature range: -20 to +50 C
- Disc diameter: from 500 to 610 mm with elastic suspension only.



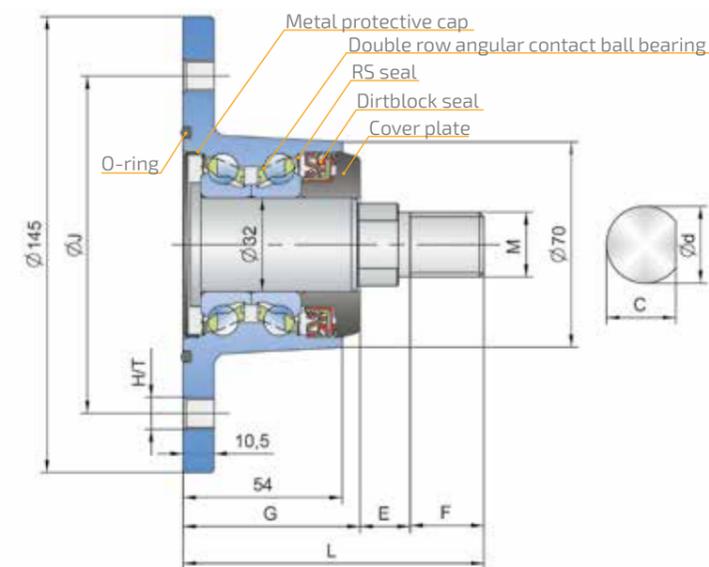
GREATER PROFIT OPPORTUNITIES

- Reduction of assembly and labor costs due to easy mounting and replacement.
- Maximizing profit rate of the Buyer by using of high quality level unit per optimized price.



AGRO POINT IL40M

INTEGRATED FLANGE, MAINTENANCE FREE BEARING

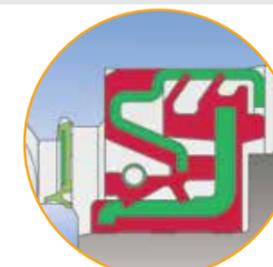


C= 42.9 kN
Co=36.3 kN

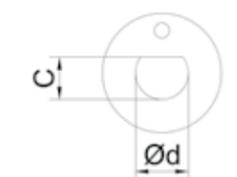
IL40M	J	H/T	d	C	M	E	F	G	L	kg
IL40-104/5T-M22x1.5-01	104	5xM12x1,25	27,95	25,4	M22x1,5	21	25	55	101	2,5
IL40-110/4H-M24x1.5	110	4x13	24	22,5	M24x1,5	35	20	74	129	2,8
IL40-110/4H-M30x2	110	4x13	35	32,4	M30x2	20	38	76	134	3,2
IL40-112/5T-M24x2	112	5xM12x1,5	30	28	M24x2	21	25	55	101	2,5
IL40-115/5H-M22x1.5	115	5x13	28	25,5	M22x1,5	28	18	55	101	2,5

ADDITIONAL OPTIONS

- Design flexibility: the hub is available with different J parameter, hole patterns and number of holes.
- Aftermarket kit is also available optionally: Agro Point bearing, bolts M12x1.25, special washer, nut M22x1.5.



RS seal/
Dirtblock seal



Available with special
locking spring washer

MOUNTING INSTRUCTIONS

- Bolt M12x1.25 mounting torque: 100 Nm;
- Nut torque: 300 Nm;
- Self locking class 8 hex nuts (M22 and M24) with helical spring washer;
- Required tools: Torque wrench
hexagon socket: size 19 (Bolts M12x1,25);
size 32 (Nut M22);
size 36 (Nut M24).



AGRO POINT IL50

INTEGRATED FLANGE, MAINTENANCE-FREE BEARING FOR INDEPENDENT DISCS

PRODUCT DESCRIPTION

AGRO POINT IL50 is FKL's high performance solution for disc harrows. The hubs are greased and sealed for the lifetime of the hub.

Optimized internal hub design, double row angular contact ball bearing, with integrated flange and Dirtblock sealing option provides a multiple service life of this hub in relation to the traditional one.

ADVANTAGES

- Longer hub's life span due to the powerful Dirtblock sealing and 30% bigger loading capacity than hubs from the same type/size group.
- Maintenance free option helps to extend service life and cut operating costs.
- Zinc-coated flange surface, corrosion resistant.
- Easy mounting and replacement.

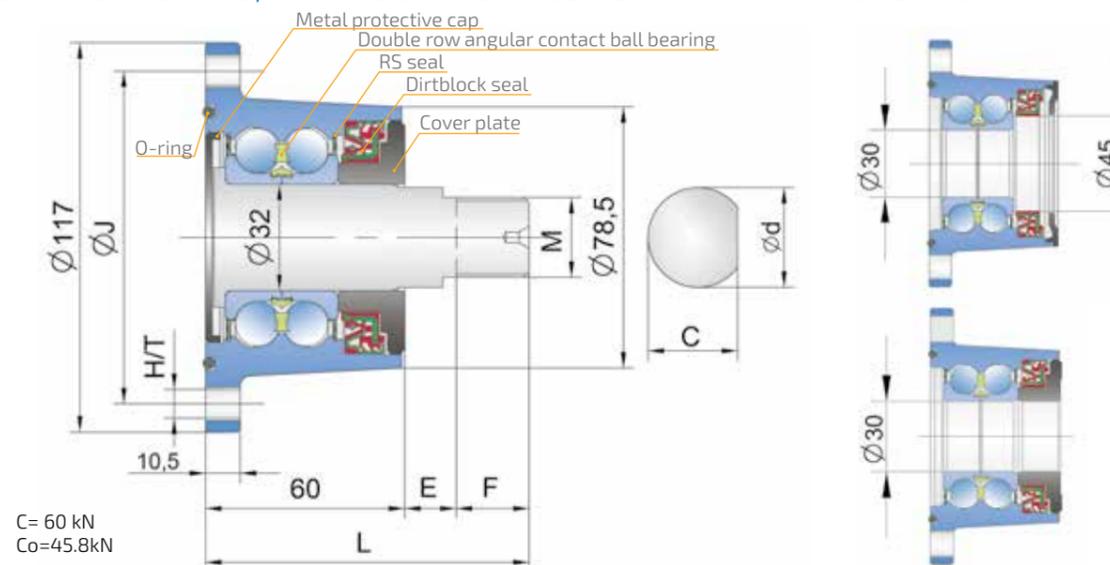
RECOMMENDED WORKING CONDITIONS

- Tractor speed: 5 ÷ 20 km/h
- Temperature range: -20 ÷ +50°C
- Disc diameter: up to 710mm (28") - from 630-710 mm with elastic suspension only.



AGRO POINT IL50

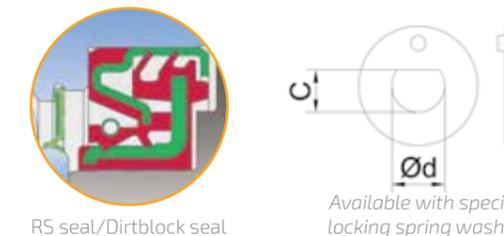
INTEGRATED FLANGE, MAINTENANCE-FREE BEARING FOR INDEPENDENT DISCS



IL50	J	H/T	d	C	M	L	E	F	kg
IL50-98/4T-M22	98	4xM12x1.25	27.95	25.4	M22x1.5	102	17	25	2.5
IL50-98/5T-M22	98	5xM12x1.25	27.95	25.4	M22x1.5	102	17	25	2.5
IL50-98/6T-M22	98	6xM12x1.25	27.95	25.4	M22x1.5	102	17	25	2.5
IL50-98/6T-M22-113	98	6xM12x1.25	27.95	25.4	M22x1.5	113	28	25	2.6
IL50-98/4T-M24	98	4xM12x1.25	30	27.5	M24x2	106	17	29	2.55
IL50-98/5T-M24	98	5xM12x1.25	30	27.5	M24x2	106	17	29	2.55
IL50-98/6T-M24	98	6xM12x1.25	30	27.5	M24x2	106	17	29	2.55
IL50-98/4T-B30-F	98	4xM12x1.25	-	-	-	-	-	-	1.9
IL50-98/4T-B30-J	98	4xM12x1.25	-	-	-	-	-	-	2
IL50-100/4T-1"	100	4xM12x1.25	30	27.5	1" SAE14h	125	36	29	2.65
IL50-100/6T-M24-R	100	6xM10x1.25	30	27	M24x1.5	97,5	15,5	22	2.65
IL50-100/6T-M24-L	100	6xM10x1.25	30	27	M24x1.5-Left	97,5	15,5	22	2.65

ADDITIONAL OPTIONS

- Design flexibility: the hub is available with different J parameter, hole patterns and number of holes.
- Aftermarket kit is also available optionally: Agro Point bearing, bolts M12x1.25, special washer, nut M22x1.5.



MOUNTING INSTRUCTIONS

- Bolt M12x1.25 mounting torque: 100 Nm.
- Nut torque: 300 Nm.
- Self locking class 8 hex nuts (M22 and M24) with helical spring washer.
- Required tools: Torque wrench
hexagon socket: size 19 (Bolts M12x1,25);
size 32 (Nut M22);
size 36 (Nut M24).



AGRO POINT IL50M

INTEGRATED FLANGE, MAINTENANCE-FREE BEARING FOR INDEPENDENT DISCS

PRODUCT DESCRIPTION

AGRO POINT IL50 is modified FKL's high performance solution for disc harrows. The hubs are greased and sealed for the lifetime of the hub.

Bigger and more robust flange, optimized internal hub design, double row angular contact ball bearing, with integrated flange and Dirtblock sealing option provides a multiple service life of this hub in relation to the traditional one.

ADVANTAGES

- Longer hub's life span due to the powerful Dirtblock sealing and 30% bigger loading capacity than hubs from the same type/size.
- Maintenance free option helps to extend service life and cut operating costs.
- Zinc-coated flange surface, corrosion resistant.
- Easy mounting and replacement.

RECOMMENDED WORKING CONDITIONS

- Tractor speed: 5 ÷ 20 km/h
- Temperature range: -20 ÷ +50°C
- Disc diameter: up to 710mm (28") - from 630-710 mm with elastic suspension only.



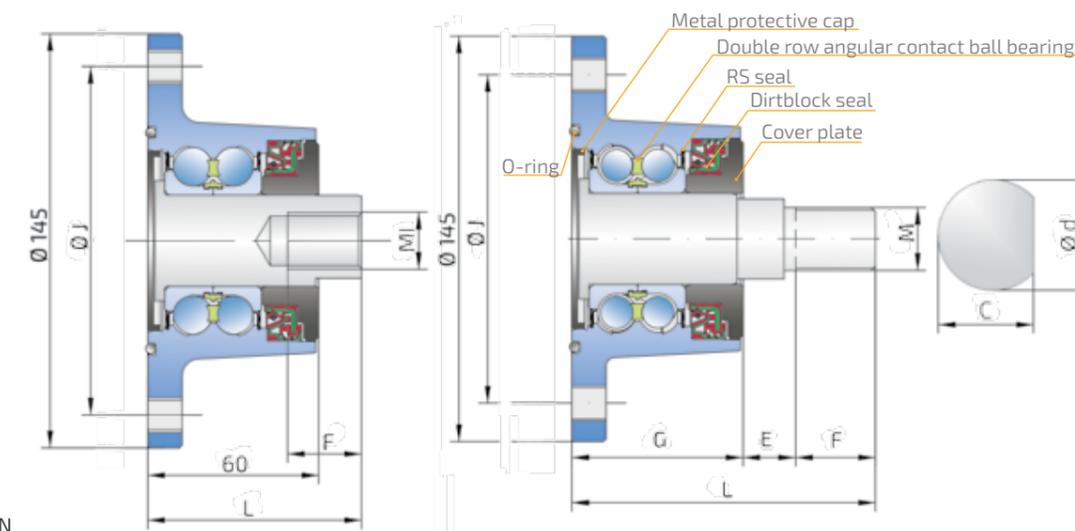
AGRO POINT IL50M

INTEGRATED FLANGE, MAINTENANCE-FREE BEARING FOR INDEPENDENT DISCS



GREATER PROFIT OPPORTUNITIES

- Reduction of assembly and labor costs due to easy mounting and replacement.
- Maximizing profit rate of the Buyer by using of high quality level unit per optimized price.



C= 60 kN
Co=45.8kN

Figure 1

Figure 2

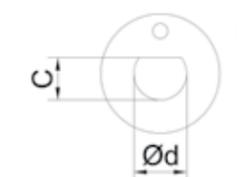
IL50M	J	H/T	d	C	M	MI	E	F	G	L	kg	Figure
IL50-110/4H-M24x1,5	110	4x13	24	22.5	M24x1.5	-	35	20	74	129	3.4	2
IL50-112/5T-M24x2	112	5xM12x1.5	30	28	M24x2	-	21	25	60	106	3.2	2
IL50-115/5H-M22x1,5	115	5x13	28	25.5	M22x1.5	-	28	18	60	106	3.2	2
IL50-120/6H-M24x1.5	120	6x13	30	27	M24x1.5	-	14.5	26	60	97.5	3	2
IL50-122/6T-M20x1,5	122	6xM12x1.25	31.3	29	-	M20x1.5	-	26	-	75	3	1
IL50-125/4T-M30x2	125	4xM12	30x30	-	M30x2	-	9.6	30.7	64	104.3	3.2	2

ADDITIONAL OPTIONS

- Design flexibility: the hub is available with different J parameter, hole patterns and number of holes.
- Aftermarket kit is also available optionally: Agro Point bearing, bolts M12x1.25, special washer, nut M22x1.5.



RS seal/Dirtblock seal



Available with special locking washer

MOUNTING INSTRUCTIONS

- Bolt M12x1.25 mounting torque: 100 Nm.
- Nut torque: 300 Nm.
- Self locking class 8 hex nuts (M22 and M24) with helical spring washer.
- Required tools: Torque wrench
hexagon socket: size 19 (Bolts M12x1,25);
size 32 (Nut M22);
size 36 (Nut M24).



AGRO POINT IL60

MAINTENANCE-FREE BEARING WITH INTEGRATED FLANGE FOR HARSH TILLAGE

PRODUCT DESCRIPTION

AGRO POINT IL60 is designed as a heavy duty option of standard size IL50 for harsh tillage and larger diameter tillage discs more than 710 mm or 28".

Combination of larger components and reliable Dirtblock seal provides the hub operating at higher loads and tillage speeds as well.

AGRO POINT IL60 is greased and sealed for the life with a multiple service life of this hub comparing to standard one.

ADVANTAGES

- 11% bigger loading capacity than standard hub size IL50.
- 31% larger shaft diameter.
- Maintenance free option helps to extend service life and cut operating costs.
- Zinc-coated flange surface, corrosion resistant.
- Easy mounting and replacement.

RECOMMENDED WORKING CONDITIONS

- Tractor speed: 5 ÷ 20 km/h
- Temperature range: -20 ÷ +50°C
- Disc diameter: up to 910 mm (36")

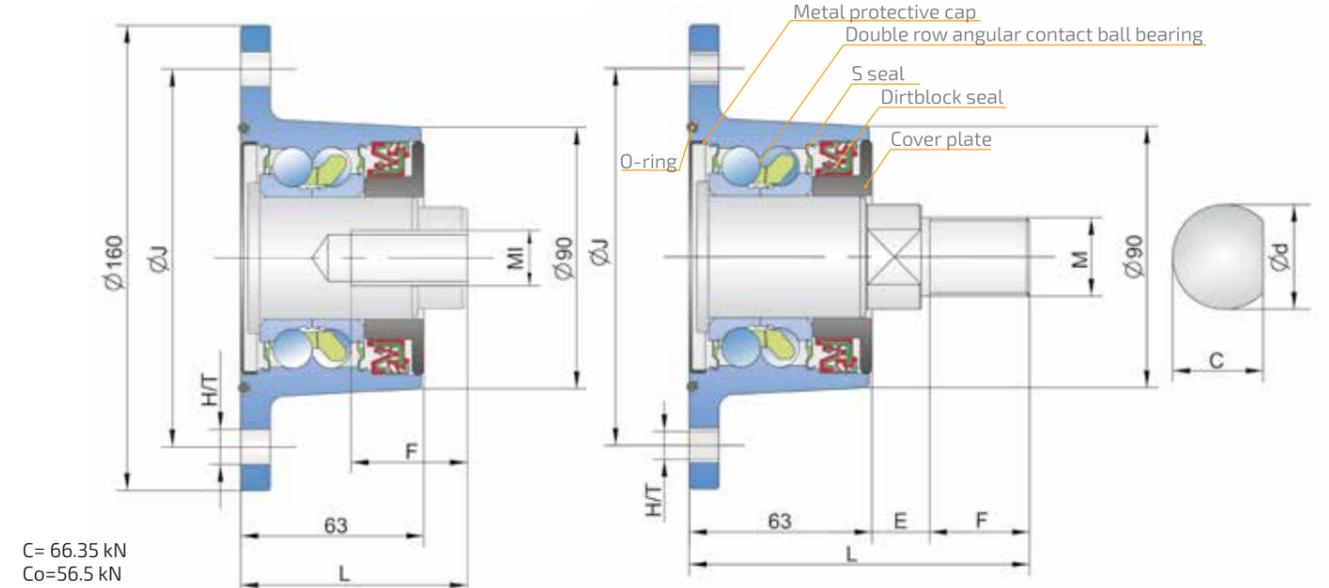


GREATER PROFIT OPPORTUNITIES

- Reduction of assembly and labor costs due to easy mounting and replacement.
- Maximizing profit rate of the Buyer by using of high quality level unit per optimized price.

AGRO POINT IL60

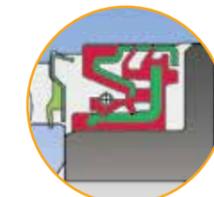
MAINTENANCE-FREE BEARING WITH INTEGRATED FLANGE FOR HARSH TILLAGE



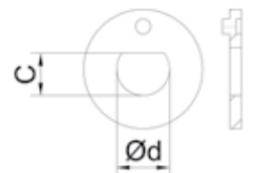
IL60	J	H/T	d	C	M	MI	E	F	L	kg
IL60-00-M20X1.5	-	blank	31	34.9	-	M20X1.5	-	40	78	4.2
IL60-120/4H-M20	120	4x11	34	31	-	M20	-	14	96	4.35
IL60-120/4x12.5H-M20	120	4x12.5	34	31	-	M20	-	14	96	4.35
IL60-122/6H-M24	122	6x12	35	32.5	M24x2	-	16.5	27	106.5	4.2
IL60-130/6T-M24	130	6xM12x1.25	30	28	M27x2	-	24.5	33.5	121	4.4
IL60-130/6T-M27	130	6xM12x1.25	35	33.5	M27x2	-	21	33.5	117.5	4.4
IL60-130/6T-M30-03	130	6xM12x1.25	40	37	M30x1.5	-	20	29	112	4.4
IL60-130/6T-M30-112-03	130	6xM12x1.25	40	37	M30x1.5	-	20	29	112	4.4
IL60-133/4H-3/4-16UNF	133.35	4x13.5	31	34.9	-	3/4-16UNF	-	40	78	4.1
IL60-140/5T-M27	130	6xM12x1.25	35	33.5	M27x2	-	21	33.5	117.5	4.4
IL60-140/6T-M27	130	6xM12x1.25	35	33.5	M27x2	-	21	33.5	117.5	4.4

ADDITIONAL OPTIONS

- Design flexibility: the hub is available with different J parameter, hole patterns and number of holes.
- Aftermarket kit is also available optionally: Agro Point bearing, bolts M12x1.25, special washer, nut M22x1.5.



S seal/Dirtblock seal



Available with special locking spring washer

MOUNTING INSTRUCTIONS

- Bolt M12x1.25 mounting torque: 100 Nm.
- Nut torque: 400 Nm.
- Self locking class 8 hex nuts (M24 and M27) with helical spring washer.
- Required tools: Torque wrench with hexagon socket: size 19 (Bolts M12x1,25); size 36 (Nut M24); size 41 (Nut M27).



FKL HUBS WITH LOCKING SPRING WASHER

INSTRUCTIONS FOR INSTALLATION

PRODUCT DESCRIPTION

FKL Hubs for seeding and tillage equipment are designed to operate in the most difficult working conditions. The hubs are lubricated for life, sealed and protected against corrosion and therefore do not require any additional maintenance. A complex sealing system protects the hub from penetration of water and all other contaminants at all weather conditions as well as during its entire life span.

PRODUCT 3D VIEW



The special FKL spring washer prevents the shaft turning at the nut tightening and due to its spring properties provides 6 tons of axial clamping force.

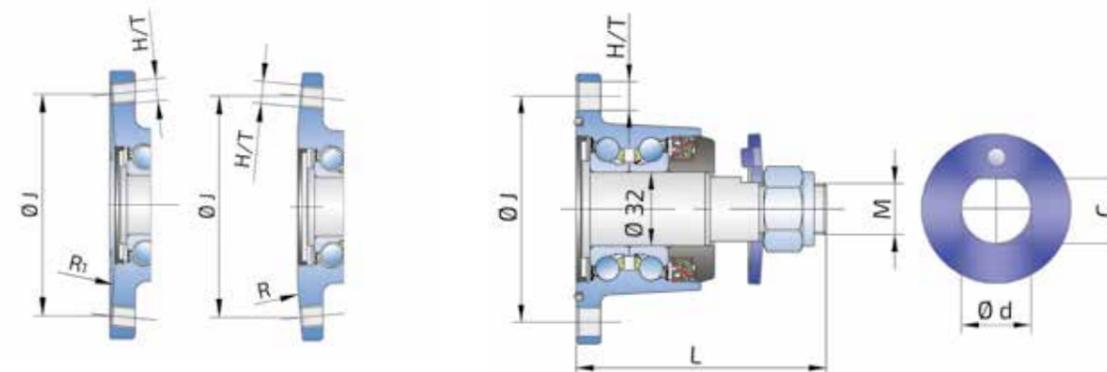


ADVANTAGES

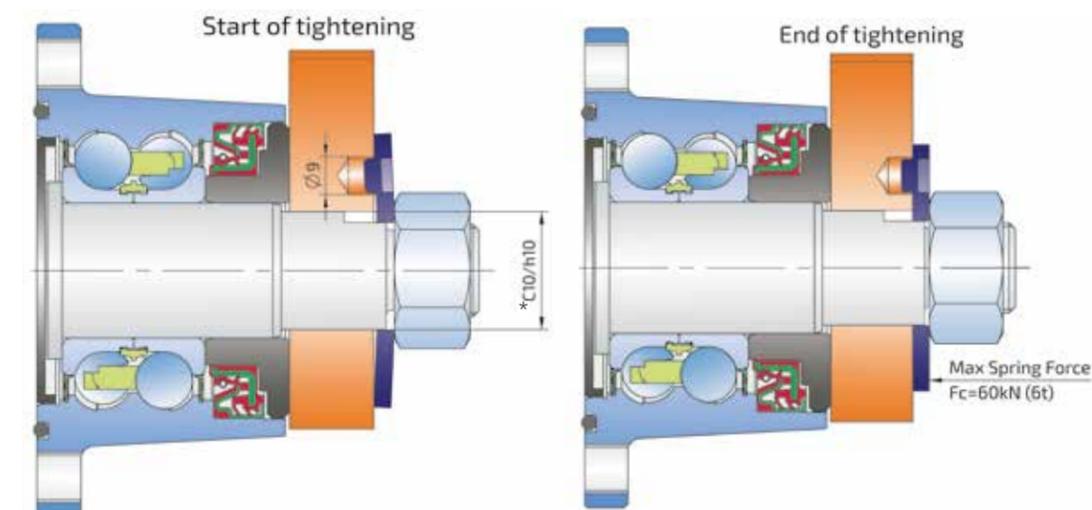
- No "D" shape hole required - only two drilled holes: one hole to fit the shaft diameter and another hole with 9 mm diameter for the washer fitting.
- Machining the Disc Arm with a simple tool.
- Provides sufficient axial force for proper hub operation throughout its lifetime.
- Proper the hub installation extends significantly its lifetime.

FKL HUBS WITH LOCKING SPRING WASHER

INSTRUCTIONS FOR INSTALLATION



IL60	J	H/T	d	C	M	L	R	R ₁	kg
IL40-98/5H-M22-04	98	4xM12x1.25	28.2	25.6	M22x1.25	108.5	-	-	2.4
IL50-120/6T-M24x2-04-R633	120	6xM12x1.25	30.2	28.2	M24x2	129	-	633	3.5
IL50-120/6T-M24x2-04-R633-114	120	6xM12x1.25	30.2	28.2	M24x2	114	-	633	3.55
IL50-120/6T-M24x2-04-R635-149	120	6xM12	30.2	28.2	M24x2	149	635	-	3.6



RECOMMENDATION

* Recommended Shaft and Hole tolerances according to ISO standard are C10/h10.

For basic sizes: 28÷40

C10=+0.194/+0.11

h10=0/-0.084

MOUNTING INSTRUCTIONS

- The user must maintain the flatness of the disc arm plate within 0.2 mm on the both side. Variation of thickness must be in tolerance according to standards.

Recommended tightening torque for the bolts:

M	M6	M8	M10	M12	M16
Nm	16	28	56	98	175

Recommended tightening torque for nuts for the mounting to the machine frame:

M	M22	M24	M27	M30	M33
Nm	300	300	400	400	400

- Nuts for mounting the hub to the machine frame and the disc connection bolts must be tightened with an appropriate torque.

The logo for FKL, featuring the letters 'FKL' in a bold, blue, sans-serif font, followed by a stylized blue circular symbol containing a white infinity-like shape. A registered trademark symbol (®) is positioned above the 'L'.

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