Idler Sprockets
Single Bearing, Double Bearing

■**Features:** Can retain tension of a chain and, thus prevents the chain from generating vibration or noise and the sprocket part from malfunctioning in engagement.

Type		M Material		S Surface Treatment
Single Bearing	Double Bearings	Main Body	Bearing	
DRC	DRCW	S35C Equivalent (Induction Hardened Teeth Tip)	Steel	Black Oxide
DRCS	-	Stainless Steel	Stainless Steel	-

The bearing is located at the center of the sprocket.

Single Bearing
DRC
DRCS
(Stainless Steel)

Double Bearings
DRCW

RoHS10

Part Number		Number of Teeth	d	Dp	Do	T	HD	L	W	Bearing		Idler Pin Applicable Size		Approx. Mass (kg)			Unit Price		
Type	No.									Part No.	b	Single Bearing	Double Bearing	DRC	DRCS	DRCW	DRC	DRCS	DRCW
	25	17	6	34.56	38	2.8	27	12	-	606ZZ	6	-	-	0.04	-	-	-	-	-
		19	8	38.58	42		31	13		608ZZ	7			0.08					
			10				31	13		6900ZZ	6			0.08					
		20	12	40.59	44		33	13		6901ZZ	6			0.08					
	35	16	10	48.82	54	4.3	38	14	-	6000ZZ	8	IDP6000S	-	0.11	0.12	-		-
			12							6001ZZ	8	IDP6001S		0.1	0.11				
		18	15	54.85	60		44	17		6202ZZ	11	IDP6202S		0.16	0.17				
		21	17	63.91	69		53	19		6203ZZ	12	IDP6203S		0.24	0.25				
		25	20	76	81		60	21		6204ZZ	14	IDP6204S		0.33	0.34				
Single Bearing **DRC** **DRCS** Double Bearings **DRCW**	40	13	10	53.07	59	7.2	38	14	-	6000ZZ	8	IDP6000S	-	0.15	0.16	-		-
			12						22	6001ZZ	8	IDP6001S	IDP6001W	0.14	0.15	0.19			
		15	15	61.08	67		44	17	28	6202ZZ	11	IDP6202S	IDP6202W	0.19	0.2	0.29			
		17	17	69.12	76		53	19	31	6203ZZ	12	IDP6203S	IDP6203W	0.3	0.31	0.45			
		19	20	77.16	84		60	21	35	6204ZZ	14	IDP6204S	IDP6204W	0.4	0.41	0.62			
	50	12	12	61.34	69	8.7	43	16	26	6201ZZ	10	IDP6201S	IDP6201W	0.21	0.22	0.31			
		13	15	66.34	74		44	17	28	6202ZZ	11	IDP6202S	IDP6202W	0.23	0.24	0.34			
		15	17	76.35	84		53	19	31	6203ZZ	12	IDP6203S	IDP6203W	0.37	0.38	0.51			
		17	20	86.39	94		60	21	35	6204ZZ	14	IDP6204S	IDP6204W	0.49	0.5	0.72			
	60	11	12	67.62	76	11.7	44	16	-	6201ZZ	10	IDP6201S	-	0.26	-	-	-	-	-
			15				44	17		6202ZZ	11	IDP6202S		0.27					
		13	17	79.6	89		53	19		6203ZZ	12	IDP6203S		0.46					
		14	20	85.61	95		60	21		6204ZZ	14	IDP6204S		0.56					
	80	9	15	74.27	85	14.6	44	17	-	6202ZZ	11	IDP6202S	-	0.38	-	-	-	-	-
		10	17	82.2	93		52	19		6203ZZ	12	IDP6203S		0.57					
		11	20	90.16	102		60	21		6204ZZ	14	IDP6204S		0.69					

Please use Cantilever pins for the models without applicable idler pin listings.

ℹ️ ■**Features of Double Bearing Type (DRCW)**
Since double bearings are installed, this type of idler sprocket can withstand heavier load than the Single Type can and is suitable for adjusting tension on the driven side.

■**When Using Idlers**
Chain elongation decreases transmission efficiency and accelerates wear, resulting in short life. Adjustment mechanism is required for the following power transmission conditions.
1. The center distance between shafts is long. (In the case that the shaft center distance exceeds 30 to 50 times greater than used chain pitch, or 20 times or greater than chain pitch under pulsating loads)
2. Relative positioning of the two sprocket shafts is exactly, or nearly, perpendicular to each other.
3. Distance between both shaft centers is short, and the upper side is the chain's loose side.
4. The chain length is long on multi-shaft transmission.
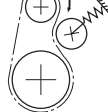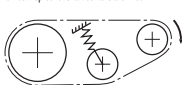5. When the chain is severely vibrating.
There are following two types of chain stretch compensation mechanisms.
1. Installing an idler or a tensioner (when (1) the both sprocket shaft centers are fixed; (2) transmission is in vertical direction; or (3) the chain causes vibration)
2. Moving either of the shafts (It may be the easiest way for regular transmission applications.)

① When both sprocket shaft centers are fixed
② Vertical Transmission
③ When the chain causes vibration
Moving

Rollers or guide rails are used as idlers in very low speed operations while Sprockets are commonly used for power transmitting chains. The idler should be installed on the chain's loose side span rather than on the tense side, except otherwise needed or in applications that require reversing operation. Installing the idler on the tension side unnecessarily increases the chain tension and makes its service life shorter. Ensure that the number of teeth of idler is designed so that the idler does not exceed the max. allowable speed (Note when the number of teeth is smaller than a small sprocket, speed increases). At least 3 teeth of the idler should contact with chain. There are several ways of idler adjustment: 1. eccentric shaft system, 2. arm system, 3. sliding system. (Please refer to "Chain Drive Mechanism" on **P.2243**.)

Ordering Example

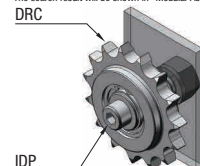| Part Number	-	Number of Teeth	-	d
DRC50	-	13	-	15

Example Combination of these app. examples can be selected on our website.
Details about Selection Procedure ☞ **P.87**

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DRC

IDP