

# BACK-UP ROLLERS WITH PIVOT FOR METAL FLATTENING MACHINES



Back-up rollers for metal flattening machines are made in two different styles:

- with full complement of cylindrical rollers
- with roller cages in mould steel or bronze.

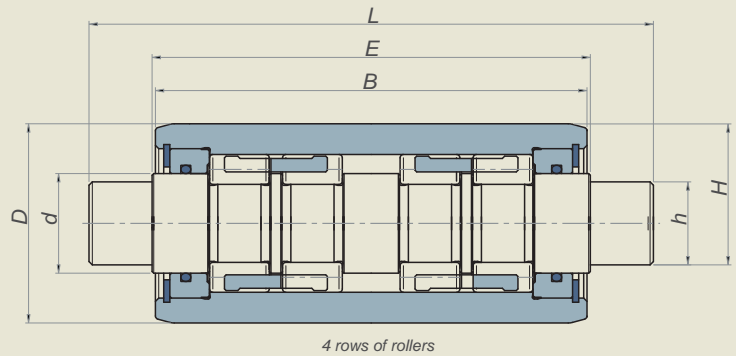
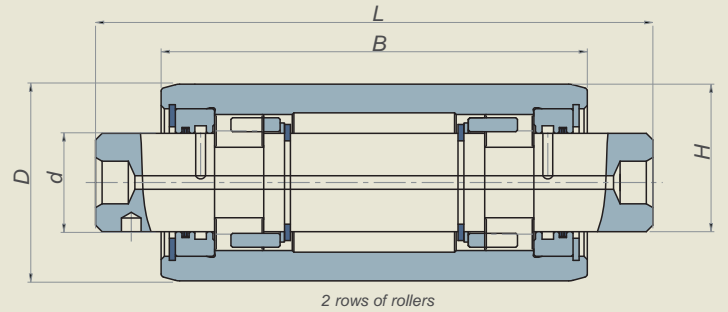
The full complement style allows the bearing to reach a high load capacity both dynamic and static.

The roller cage style (made of two or more cages), along with the wide working surface, allow for increased flattening performance and high speed.

The distance rings on the outer ring and the pivot, plus the circle clearance, which is calculated at the minimum, allow a good support of axial loads.

The style with roller cages represents the most advanced series of back-up rolls.

This series of back-up rollers is usually manufactured with two lateral thrust bearings in the inner body, either with balls or rollers, which guarantee a very strong support of axial loads.



Part #	outer Ø mm.	Reference	D mm.	d mm.	L mm.	B mm.	E mm.	h mm.	PDA seals	Rows of rollers	Cages	C <sub>w</sub> KN	C <sub>ow</sub> KN
300-0001	24,5	CRAT 24.5X12X75	24,5	12	75	41	43	-	-	2	•	10	16,8
300-0002	33	CRAT 33X19X90	33	19	90	57	58	-	-	2	•	18	33
300-0003	47	CRAT 47X20X155	47	20	155	125	126	-	-	4	•	57,2	65,9
300-0004	47	CRAT 47X22X145	47	22	145	115	-	21	-	2	•	46,4	49,2
300-0005	50	CRAT 50X20X165	50	20	166	128	130	-	•	4	-	69,1	83,2
300-0006	52	CRAT 52X20X55	52	20	55	24	27,4	-	-	2	•	33	43
300-0007	52	CRAT 52X20X125	52	20	125	94	95	-	-	4	•	65,1	77,7
300-0008	55	CRAT 55X25X159.5	55	25	159,5	125	-	21	-	4	•	100,4	131,8
300-0009	60	CRAT 60X25X90	60	25	90	50	52	-	•	2	•	36,2	43
300-0010	60	CRAT 60X25X160	60	25	160	130	132	-	•	2	•	71,3	84,3
300-0011	60	CRAT 60X25X170	60	25	170	130	132	-	•	2	•	71,3	84,3
300-0012	60	CRAT 60X30X151.25	60	30	151,25	109,25	111,3	27	•	2	•	70,2	82
300-0013	60	CRAT 60X30X189	60	30	189	160,3	-	25	-	2	•	72,4	85,3
300-0014	60	CRAT 60X30X201	60	30	201	160,3	-	-	•	2	•	72,4	85,3
300-0015	60	CRAT 60X30X202	60	30	202	160,3	162	27	•	2	•	72,4	85,3
300-0016	65	CRAT 65X25X198	65	25	198	156	168	21,5	-	4	-	124,2	170,6
300-0017	75	CRAT 75X40X165	75	40	165	140	143	29,5	-	4	-	149	208,5
300-0018	76	CRAT 76X40X165	76	40	165	140	143	30	-	4	•	152,3	213,8
300-0019	80	CRAT 80X35X201	80	35	201	160,3	-	-	•	2	•	111,2	115,6
300-0020	80	CRAT 80X35X210	80	35	210	170	-	-	•	2	•	111,2	115,6
300-0021	80	CRAT 80X35X230	80	35	230	200	-	30,5	-	2	•	114,5	118,8
300-0022	80	CRAT 80X35X302.5	80	35	302,5	261,8	-	-	•	2	•	111,2	115,6
300-0023	80	CRAT 80X40X180	80	40	180	140	143	-	•	4	•	127,5	171,7
300-0024	80	CRAT 80X40X210	80	40	210	150	156	-	-	4	-	136	188
300-0025	90	CRAT 90X45X134.3	90	45	134,3	100	102	-	•	2	-	139,3	167,4
300-0026	90	CRAT 90X45X140	90	45	140	100	102	-	•	2	•	157,7	195,5
300-0027	95	CRAT 95X45X288	95	45	288	236	240	-	•	2	•	173,9	229
300-0028	95	CRAT 95X45X362	95	45	362	310	314	-	•	2	•	179,3	238,7
300-0029	100	CRAT 100X45X245	100	45	245	200	201,4	-	•	2	•	175	231,1
300-0030	100	CRAT 100X45X246	100	45	246	200	201,4	-	•	2	•	175	231,1
300-0031	100	CRAT 100X45X246	100	45	246	200	201,4	-	•	4	-	280,8	415,8
300-0032	134	CRAT 134X55X146	134	55	146	83	85	50	•	2	-	227,9	315

C<sub>w</sub> Dynamic load

C<sub>ow</sub> Static load



# BACK-UP ROLLERS WITH PIVOT

## FOR METAL FLATTENING MACHINES

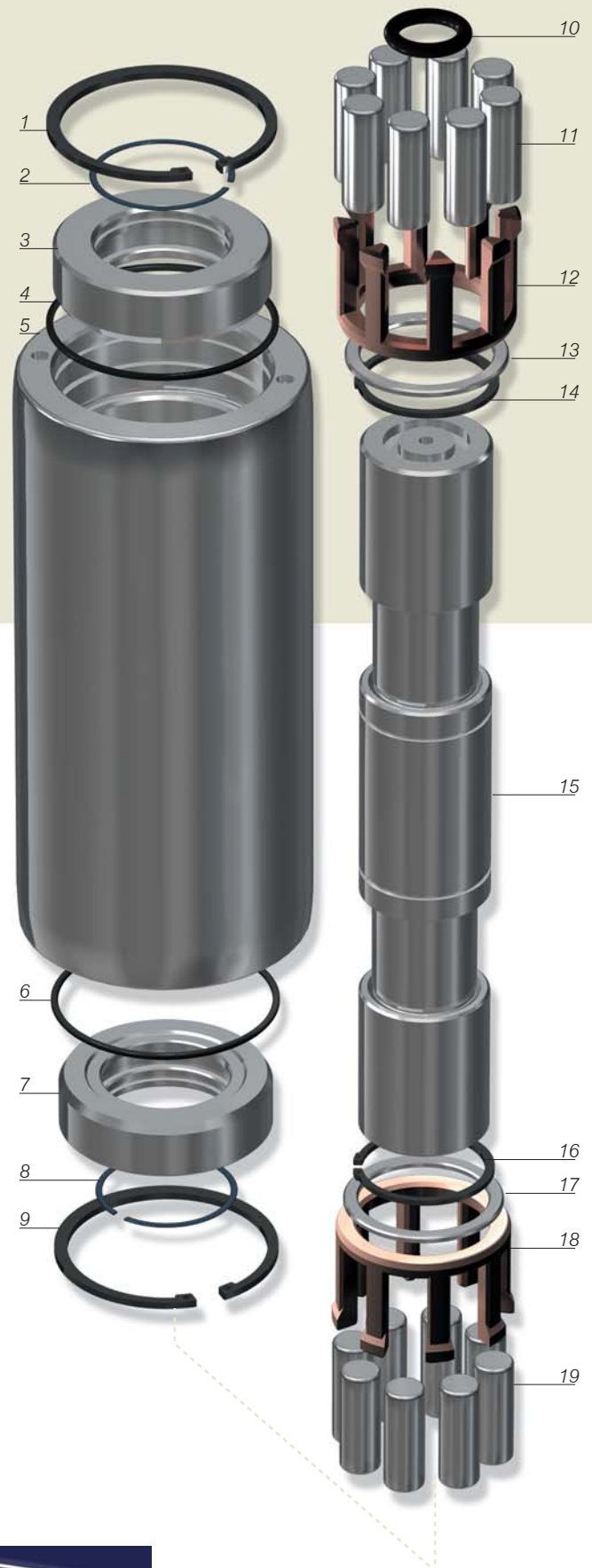


1. SEEGER LOCKING RING
2. FEY SEAL RING
3. SUPPORT THRUST RING
4. O-RING SEAL
5. OUTER RING
6. O-RING SEAL
7. SUPPORT THRUST RING
8. FEY SEAL RING
9. SEEGER LOCKING RING
10. O-RING SEAL
11. CYLINDRICAL ROLLERS
12. CAGE
13. SUPPORT LITTLE THRUST RING
14. SEEGER SEAL RING
15. PIVOT
16. SEEGER SEAL RING
17. SUPPORT LITTLE THRUST RING
18. CAGE
19. CYLINDRICAL ROLLERS

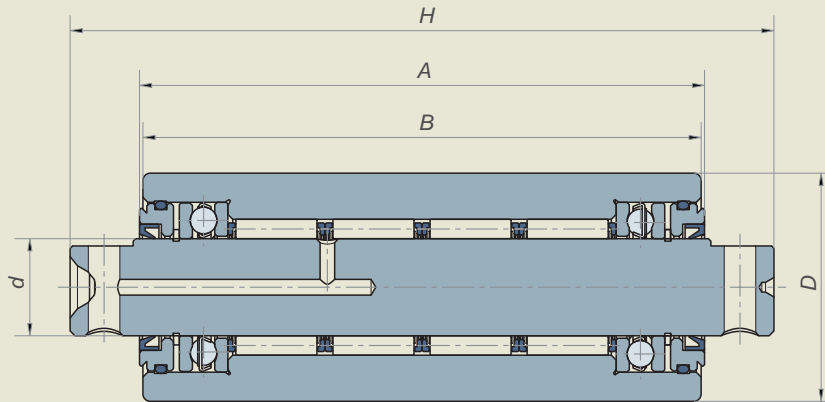
- the bearings are supplied with 2ZL seals or PP seals, on request
- the back-up rolls are grease lubricated according to DIN 51825
- Air filling is provided for PDA execution
- Dimension H is selected in groups of 0.008 mm

Back-up rollers with pivot for metal flattening machines have the following characteristics:

- The outer ring is supplied in UNI 100Cr6/100CrMo7 core hardened steel that can reach hardness 60-2 HRC.
- If required the degree of hardness can be reduced to 53-58 on request.
- The profile of the outer ring is usually cambered in order to optimize the distribution of the applied load.
- The pivot is made in two different steel types, according to dimension and shape:
  - 1) core hardened steel UNI 100 Cr6/100 CrMo7;
  - 2) case hardened steel UNI 18 NiCrMo5.
 In both cases the degree of hardness is 60-HRC.
- The bearings have a grease lubrication system and are supplied already pre-lubricated. The lubrication system allows both the entrance and the exit of grease. They can be supplied also in Long-life style.
- The sealing system is very efficient, it does not allow outer agents (such as, dust, mill scale, humidity) to enter the back-up roll; at the same time, it prevents the leakage of grease.
- Precision class is P0; on request the rollers can be manufactured with precision class P5 (DIN 620) and selected in groups.
- On request, they can be manufactured in stainless steel.

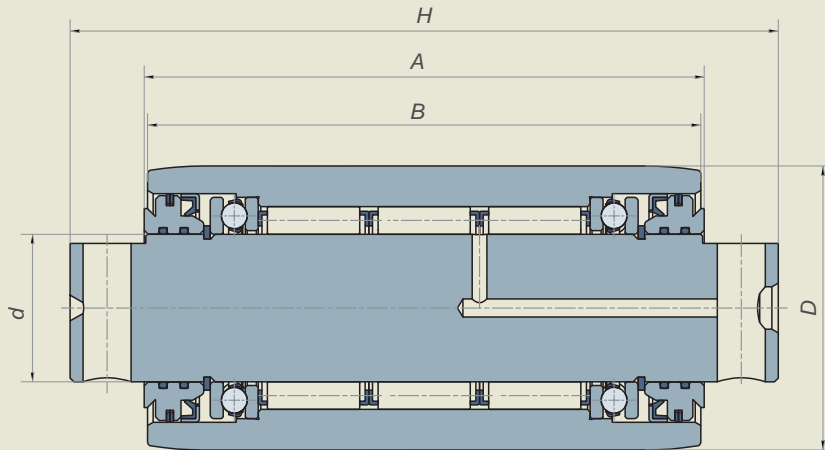


# BACK-UP ROLLERS WITH PIVOT (900-2469/2)



C.R. ref.	$d$ mm	$D$ mm	$H$ mm	$A$ mm	$B$ mm	$C$ KN	$C_0$ KN	$C_w$ KN	$C_{0w}$ KN	Max speed RPM min <sup>-1</sup>
900-2469/2	20	47	145	116.6	115	102.2	124.5	87	105	5.600
Bearing	C	Dynamic load		$C_0$	Static load					
Roller	$C_w$	Dynamic load		$C_{0w}$	Static load					

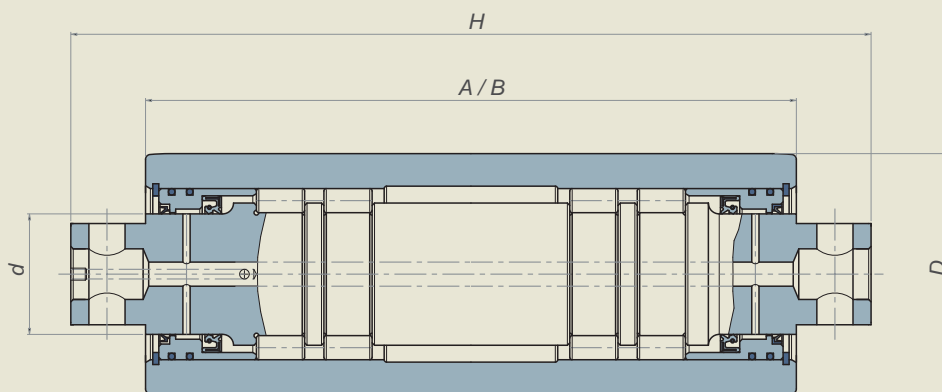
# BACK-UP ROLLERS WITH PIVOT (900-2721)



C.R. ref.	$d$ mm	$D$ mm	$H$ mm	$A$ mm	$B$ mm	$C$ KN	$C_0$ KN	$C_w$ KN	$C_{0w}$ KN	Max speed RPM min <sup>-1</sup>
900-2721	40	74	192	151.8	150	194	258	155	205	4.000
Bearing	C	Dynamic load		$C_0$	Static load					
Roller	$C_w$	Dynamic load		$C_{0w}$	Static load					

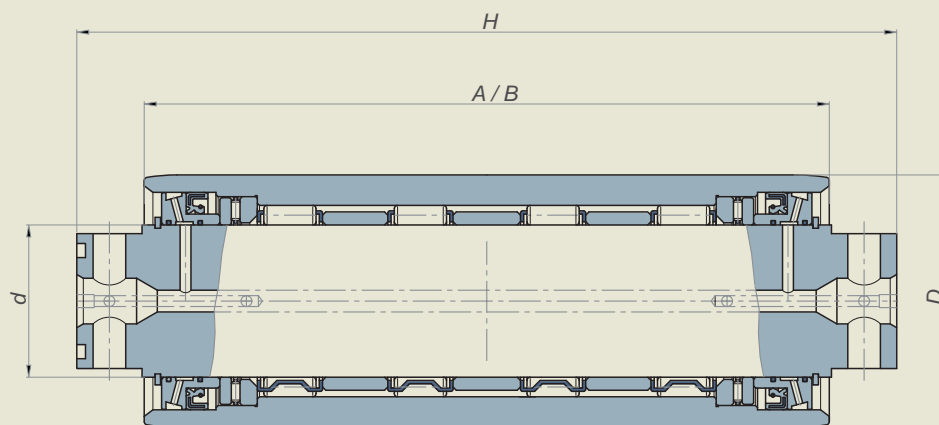


# BACK-UP ROLLERS WITH PIVOT (900-2863)



C.R. ref.	$d$ mm	$D$ mm	$H$ mm	$A$ mm	$B$ mm	$C$ KN	$C_o$ KN	$C_w$ KN	$C_{ow}$ KN	Max speed RPM min <sup>-1</sup>
900-2863	50	100	332	270	270	300	561	270	480	1.000
Bearing	$C$	Dynamic load		$C_o$	Static load					
Roller	$C_w$	Dynamic load		$C_{ow}$	Static load					

# BACK-UP ROLLERS WITH PIVOT (900-2752/2)



C.R. ref.	$d$ mm	$D$ mm	$H$ mm	$A$ mm	$B$ mm	$C$ KN	$C_o$ KN	$C_w$ KN	$C_{ow}$ KN	Max speed RPM min <sup>-1</sup>
900-2752/2	70	120	377	317	315	440	798	333	510	2.500
Bearing	$C$	Dynamic load		$C_o$	Static load					
Roller	$C_w$	Dynamic load		$C_{ow}$	Static load					

