



# CORPORATE STANDARD

AA 724 25 30

Rev. No. 03

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## REDUCERS, CONCENTRIC, SEAMLESS, BUTT WELDING, CARBON STEEL (HIGH TEMPERATURE SERVICE)

### 1.0 SCOPE:

This standard covers designation, material, sizes and dimensions of seamless butt welding concentric reducers.

### 2.0 DESIGNATION:

A seamless concentric reducer to this standard of nominal size 2" x 1" and schedule 40 x 80 shall be designated as follows:

#### 2.1. On drawings:

- (a) Material specification column: AA 724 25 30
- (b) Description column : CONTC RDCR 2" x 1" SCH 40 x 80 BW CS HT .

#### 2.2 For placing indents on purchase:

Seamless concentric reducer, butt welding, carbon steel, nominal size 2" x 1", sch 40 x 80, AA 724 25 30.

#### 2.3 For issuing enquiries and on purchase orders:

While issuing enquiries and purchase orders delete BHEL standard number from the clause 2.2 and add the information given under clause 3.0 (delete the material not applicable in Cl 3.2) and 4.0.

### 3.0 COMPLIANCE WITH NATIONAL STANDARDS:

3.1 **Dimensions, Tolerances & General requirements** : ANSI B 16.9-1993

3.2 **Material** : Carbon steel to ASME SA 234, Gr.: WPB

### 4.0 TECHNICAL DELIVERY CONDITIONS:

As per BHEL standard AA 085 14 02.

### 5.0 REFERRED STANDARDS (Latest publications including amendments):

- 1) ANSI B 16.9      2) AA 085 14 02      3) ASME SA 234

**Revisions :**  
Cl. 20.8.25 of MOM of WG-SMC+RP

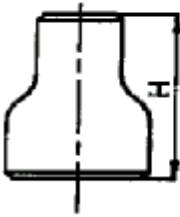
**APPROVED :**  
INTERPLANT  
STANDARDIZATION COMMITTEE- SMC+RP

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Dt:15.12.2004	Dt :	Year :	HYDERABAD	Corp. R&D	FEB, 1981

## CORPORATE STANDARD



## CONCENTRIC REDUCER



(All dimensions are in mm unless otherwise specified)

Nom. pipe size inches	Schedule	ANSI pipe size OD x Th.		OD of large end		OD of small end		End-to-end H.		Wt./piece Kg	sub-code
		Large end	Small end	Norm.	Tol.	Norm.	Tol.	Norm.	Tol.		
1x1/2	80 x 80	33.4 x 4.55	21.3 x 3.73	33		21		51		0.03	016
	160 x 160	33.4 x 6.35	21.3 x 4.78								
	40 x 80	60.3 x 3.91	33.4 x 4.55								
2X1	80 x 80	60.3 x 5.54	33.4 x 4.55	60		33		76		0.40	032
	80 x 160	60.3 x 5.54	33.4 x 6.35								
	160 x 80	60.3 x 8.74	33.4 x 4.55								
	XXS x 160	60.3 x 11.07	33.4 x 6.35								
2x1/2	40 x 80	60.3 x 3.91	48.3 x 5.08	60	±1	48	±1	76	±2	1.00	075
	80 x 80	60.3 x 5.54	48.3 x 5.08								
	160 x 160	60.3 x 8.74	48.3 x 7.14								
	XXS x XXS	60.3 x 11.07	48.3 x 10.16								
3X1/2	40 x 80	88.9 x 5.49	48.3 x 5.08	89		48		89		0.40	083
	80 x 80	88.9 x 7.62	48.3 x 5.08								
	160 x 160	88.9 x 11.12	48.3 x 7.14								
	XXS x XXS	88.9 x 15.24	48.3 x 10.16								
3X2	40 x 40	88.9 x 5.49	60.3 x 3.91	89		60		89		0.56	091
	40 x 80	88.9 x 5.49	60.3 x 5.54								
	80 x 80	88.9 x 7.62	60.3 x 5.54								
	160 x 160	88.9 x 11.12	60.3 x 8.74								
4X2	XXS x XXS	88.9 x 15.24	60.3 x 11.07	114	+2	60		102		0.84	105
	40 x 40	114.3 x 8.02	60.3 x 3.91								
	80 x 80	114.3 x 8.56	60.3 x 5.54								
	120 x 80	114.3 x 11.12	60.3 x 5.54								
160 x 160	160 x 160	114.3 x 13.49	60.3 x 8.74	114	-1	60		102		1.00	075
	XXS x XXS	114.3 x 17.12	60.3 x 11.07								
										2.50	156
										1.00	164
										1.00	172
										1.30	180
										1.80	199
										2.50	202
										1.60	210
										2.20	229
										3.00	237
										3.4	245
										4.1	253



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(All dimensions are in mm unless otherwise specified)

Nom. pipe size inches	Schedule	ANSI pipe size OD x Th.		OD of large end		OD of small end		End-to-end H		Wt./piece Kg	sub-code
		Large end	Small end	Nom.	Tol.	Nom.	Tol.	Nom.	Tol.		
4X3	40 x 40	114.3 x 8.02	88.9 x 5.49							1.6	261
	80 x 40	114.3 x 8.56	88.9 x 5.49		+2					2.2	270
	120 x 80	114.3 x 11.12	88.9 x 7.62	114	-1	89	±1	102		3.0	288
	160 x 160	114.3 x 13.49	88.9 x 11.12							3.4	296
	XXS x 160	114.3 x 17.12	88.9 x 15.24							4.1	300
6X3	40 x 40	168.3 x 7.11	88.9 x 5.49							4.0	318
	80 x 40	168.3 x 10.97	88.9 x 5.49							5.9	326
	120 x 80	168.3 x 14.27	88.9 x 7.62	168	+3	89		140		7.5	334
	XXS x 160	168.3 x 21.95	88.9 x 11.12		-1					11.0	342
	40 x 40	168.3 x 7.11	114.3 x 6.02							4.0	350
6X4	80 x 80	168.3 x 10.97	114.3 x 8.56	168				140	±2	5.9	369
	120 x 120	168.3 x 14.27	114.3 x 11.12							7.5	377
	XXS x 160	168.3 x 21.95	114.3 x 13.49							11.0	385
	20 x 40	219.1 x 6.35	114.3 x 6.02							5.0	393
	80 x 80	219.1 x 12.70	114.3 x 8.56							9.8	407
8X4	120 x 120	219.1 x 18.20	114.3 x 11.12	219	±2	114		152		16.5	415
	20 x 40	219.1 x 6.35	168.3 x 7.11							5.0	423
	80 x 80	219.1 x 12.70	168.3 x 10.97							9.8	431
	120 x 120	219.1 x 18.20	168.3 x 14.27							16.5	440
	20 x 40	273 x 6.35	168.3 x 7.11							7.3	458
10X6	80 x 80	273 x 7.80	168.3 x 7.11	273	+4	168		178		10.7	466
	120 x 120	273 x 15.08	168.3 x 10.97		-3					17.0	474
	20 x 20	273 x 6.35	219.1 x 6.35							7.3	482
	30 x 20	273 x 7.80	219.1 x 6.35							10.7	490
	80 x 80	273 x 15.08	219.1 x 12.70							17.0	504
12X8	20 x 20	323.8 x 6.35	219.1 x 6.35							10.0	512
	40 x 20	323.8 x 10.31	218.1 x 6.35	323		219		203	±3	15.0	520
	80 x 80	323.8 x 17.47	219.1 x 12.70							27.0	539

## CORPORATE STANDARD



(All dimensions are in mm unless otherwise specified)

Nom. pipe size inches	Schedule	ANSI pipe size OD x Th.		OD of large end		OD of small end		End-to-end H		Wt./ piece Kg	sub-code
		Large end	Small end	Nom.	Tol.	Nom.	Tol.	Nom.	Tol.		
12X10	20 x 20	323.8 x 6.35	273 x 6.35	324		273	+4	203		10.0	547
	40 x 30	323.8 x 10.31	273 x 7.80				-3			15.0	555
	80 x 80	323.8 x 17.47	273 x 15.08							27.0	563
14X10	10 x 20	355.6 x 6.35	273 x 6.35	356		273		330		18.0	571
	40 x 30	355.6 x 11.12	273 x 7.80							35.0	580
14X12	10 x 20	355.6 x 6.35	323.8 x 6.35	356		324		330		18.0	598
	40 x 40	355.6 x 11.12	323.8 x 10.31							35.0	601
16X8	40 x 30	406.4 x 12.70	219.1 x 7.04	406		219	±2	356		15.0	610
	40 x 30	406.4 x 12.70	273 x 7.80			273				16.2	628
16X12	10 x 20	406.4 x 6.35	323.8 x 6.35	406	+4	324		356	±3	22.0	636
	40 x 40	406.4 x 12.70	323.8 x 10.31								
16X14	10 x 10	406.4 x 6.35	355.6 x 6.35	406	-3	356	+4	356		22.0	652
	40 x 40	406.4 x 12.70	355.6 x 11.12								
18X14	10 x 10	457.2 x 6.35	355.6 x 6.35	457		356		381		27.0	679
	40 x 40	457.2 x 14.27	355.6 x 11.12								
18X16	10 x 10	457.2 x 6.35	406.4 x 6.35	457		406		381		27.0	695
	40 x 40	457.2 x 14.27	406.4 x 12.70								
20X16	10 x 10	508 x 6.35	406.4 x 6.35	508	+6	406		508		39.0	717
	40 x 40	508 x 6.35	457.2 x 6.35								

- NOTE :**
- Weights given in the table are for general reference only and are not meant for commercial transactions.
  - Corporate sub-codes are shown in the table against corporate rationalised sizes.
  - Sizes used by individual plants are covered in the Annexure along with complete code numbers.