

## Hydraulic Curing Presses for Passenger, Truck, Tractor and Earthmover Tires



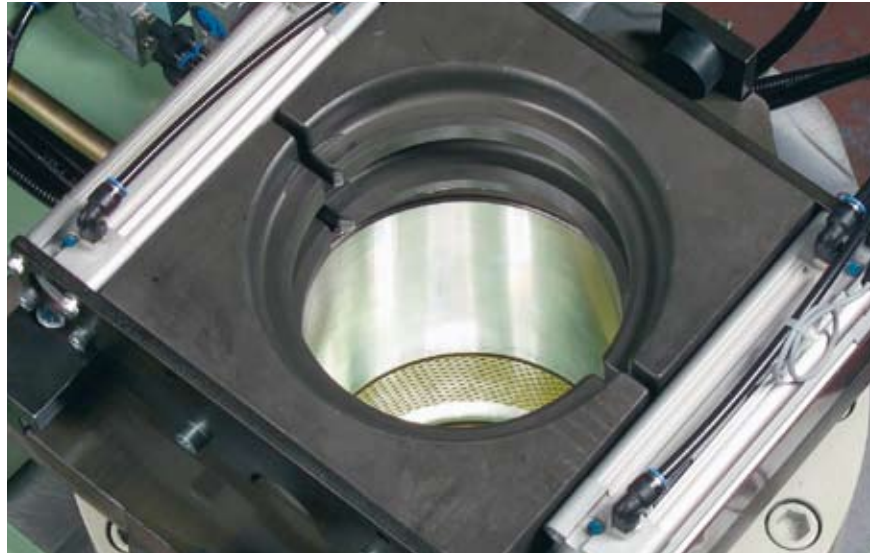
## Curing Presses from Harburg-Freudenberger

**This is where tires get their tread – with high-precision and for durability**

Almost 30 years experience with customers using our hydraulic curing presses has gone into the design of our column curing press – the perfect curing press, set up for optimal operation, with optimally arranged welding seams and 30% less parts than the frame type curing press.



Here technology and esthetics are combined in a press that will delight you.



*Locking plates in closed position*



*Gooves*

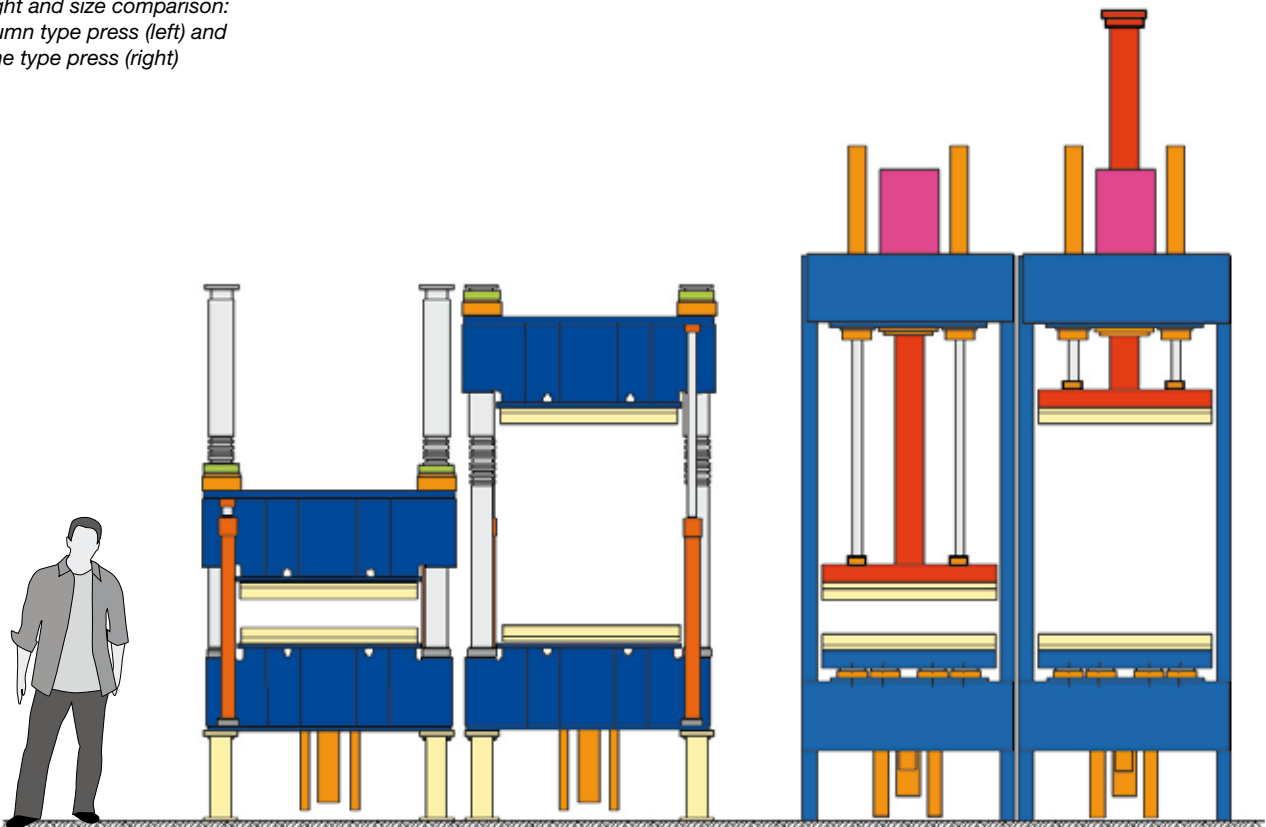


*Column control*



*Quality-assured materials*

*Height and size comparison:  
Column type press (left) and  
frame type press (right)*



**This is where tires get their tread –  
with high precision and for  
durability**

Meticulously produced tires require meticulously accurate presses. These we have developed and supplied, making the current generation of tires a reality.

Every variety of passenger car tire can be produced using our presses. So there are no limits to developing tires to meet new requirements. The presses follow programmed or customized instructions.



With two types of presses, we are well positioned to meet your specifications:

The column type press

- compact construction
- low silhouette
- few parts
- small parts that can be manufactured accurately
- parts that can easily be exchanged
- defined power flux
- quick and easy to assemble

The frame type press

- modest width
- frame subjected to endurance test
- high closing force

These presses have some features in common:

- only authentic, tested parts and materials are used for load-bearing components
- individual operation of mold
- CE and TÜV approved, quality-assured materials
- parts are calculated according to the finite element method



## Hydraulic Curing Presses Column Type

Type		48-150	48-170	52-180
Closing Force	kN	1,500	1,700	1,800
I.D. Heat Shield	mm	1,160	1,220	1,320
Frame Width	mm	1,250	1,310	1,410
Mold Height, from/to	mm	290/440	290/500	290/560
Thickness of Heating Platen	mm	50	50	60
Thickness of Insulating Platen	mm	25	60	25
Range of Bead Diameter	in	13-18/15-21	13-18/15-23	15-25
Height of Green Tire, max.	mm	400	450	500
Green Tire Diameter, max.	mm	775	850	900
Weight of Press without Molds	tons	12	13	14
Int. Pressure, max.	bar	28	28	28
Heating Pressure, max.	bar	16	16	16
Shaping Pressure, max.	bar	1.5	1.5	1.5



## Hydraulic Curing Presses Frame Type for Passenger Car and Light Truck Tires

Type		4530 RH/1	4533 RH	4839 RH	5244 RH
Closing Force	kN	1,360	1,500	1,770	2,000
I.D. Heat Shield	mm	1,140	1,140	1,210	1,320
Frame Width	mm	1,190	1,190	1,280	1,380
Mold Height, from/to	mm	190/430	290/430	250/510	320/630
Thickness of Heating Platen	mm	50	50/60	50/60	50
Thickness of Insulating Platen	mm	25	25	25	25
Range of Bead Diameter	in	12-18	13-18	13-18/15-21	15-23
Height of Green Tire, max.	mm	370	420	500	600
Green Tire Diameter, max. in two-piece mold	mm	780	810	860	
Green Tire Diameter, max. in segmented mold	mm	740	740	810	900
Weight of Press without Molds	tons	14	14.5	20	21.5
Reference Drawing		AR 3063	AR 2943	AR 3222	3080716
Dry Cycle	sec.	45	45 <sup>1)</sup>	55 <sup>2)</sup>	65
Int. Pressure, max.	bar	28	28	28	28
Heating Platen Pressure, max.	bar	16	16	16	16
Shaping Pressure, max.	bar	1.5	1.5	1.5	1.5

<sup>1)</sup> 55 sec. with chuck unloading

<sup>2)</sup> 60 sec. with chuck unloading



## Hydraulic Curing Presses for Truck, Tractor and Earthmover Tires

Type		6475 HP	6495 H	66-500 A	75-740	8520 H	10027 H
Cavity	No.	2	2	2	1	1	1
Closing Force	kN	3,400	4,300	5,000	7,400	9,000	12,250
I.D. Heat Shield	mm	1,620	–	1,700	1,905	–	–
I.D. Heating Dome	mm	–	1,525	–	–	2,060	2,450
Frame Width	mm	1,634	1,634	–	–	–	2,600
Mold Height, from/to	mm	390/635	254/635	245/650	500/700	558/914	610/1,067
Thickness of Heating Platen	mm	60	–	60	–	–	–
Thickness of Insulating Platen	mm	25	–	30	–	–	20
Range of Bead Diameters	in	19.5-24.5 20-28	17-24	18-24	18-24.5	20-38	24-42
Height of Green Tire, max.	mm	700	1,066	1,200	1,200	1,600	1,855
O.D. of Green Tire, max.	mm	1,150	1,150	1,420	1,500	1,900	2,235
Typical Tire Size	mm	13 R 22.5	12-20	–	–	21-35	29.5 x 35
Weight of Press , approx. with molds	tons	46	46	42	48	55	94
Reference DWG.	AR	3,101	2,801	–	–	2,594	2,781
Opening time	sec.	<60	<60	–	<100	<150	<250
Int. Pressure, max.	bar	28	28	28	28	28	28
Heating Dome Pressure, max.	bar	–	8	–	–	8	8
Heating Platen Pressure, max.	bar	16	–	16	16	–	–
Shaping Pressure, max.	bar	1.5	1.5	2.5	3.0	4.0	4.0





## The Complete Range of Mixing Room Systems, Rubber Processing and Tire Manufacturing Processing Machinery

### Complete Mixing Room Systems

for the tire industry and for the technical rubber goods industry including plant for storage, weighing and feeding of compound components.

### Heavy Duty Internal Mixers

- with tangential rotor system
- with intermeshing rotor system

### Laboratory-Size Mixers

- with tangential rotor system
- with intermeshing rotor system

### Heavy Duty Mixing Mills

- with individual roll drive and hydraulic roll nip adjustment

### Single-Screw Dump Extruders EAE

as hot-feed extruder

- with roller-die
- with strainer device
- with pelletiser head
- with strainer/tube slitler head

### Conical Twin Screw Extruder DSE

- with roller-die

### PLC Control Systems

as single machine and systems control

### Process Control Computer PKS

as mixing room automation system

### Venting extruders

- processing extruders
- extrusion lines

### Extrusion lines

- for the economic, process-controlled production of tubes and profiles for both mono- and co-extrusion with and without metal inserts

### Compounding extruders

- roller-die extruders
- strainers
- pelletizers

### Processing extruders

- hot feed
- cold feed, pin-type extruders for all extrudable tire components and profiles, e.g. tread and sidewall profiles and inner liners; complete extrusion lines

### Tire building machines and accessories

- 1st + 2nd stage - car and light truck tires (unistage), range 12-24 inch
- 2nd stage - car tires
- server, reel- and precut tread server, JLB-server (tension control)

### Hydraulic tire curing presses

- for car tires
- for truck, tractor and earthmover tires

**Detailed individual brochures are available on all the above machines and lines.**



### **Harburg-Freudenberger**

We develop, build and distribute machines, lines and systems across our three company divisions based on 150 years of company tradition.

### **Rubber mixing technology**

We provide the most comprehensive range of machines for the rubber and caoutchouc industry including all major preparation and processing stages.

- Complete mixing room systems
- Internal mixer
- Mixing mills
- Dump extruder

### **Caoutchouc technology**

Production machines and lines for the manufacture of tires and technical rubbergoods from raw material feeding to vulcanisation:

- Extruder
- Extrusion lines
- Tire building machines
- Curing presses

### **Edible Oil Technology**

Machines for processing oilseed, crude oils of vegetable origin and animal raw materials as well as screw presses for the dewatering of synthetic caoutchouc and similar products:

- Screw presses
- Refining lines
- Process engineering

### **We are always at your service**

With our foreign offices and our service points we have a global presence. If you would like to learn more about Harburg-Freudenberger or if you require information on specific services, please do not hesitate to contact us.



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